

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

United States Department of Agriculture

Natural
Resources
Conservation
Service

Washington Water Supply Outlook Report April 1, 2008



Water Supply Outlook Reports and Federal - State – Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

Local Natural Resources Conservation Service Field Office

or

Scott Pattee
Water Supply Specialist
Natural Resources Conservation Service
2021 E. College Way, Suite 214
Mt. Vernon, WA 98273-2873
(360) 428-7684

or

Kelly Sprute
Public Affairs Specialist
Natural Resources Conservation Service
1835 Black Lake Blvd. SW, Suite D
Olympia, WA 98512-5623
(360) 704-7789

How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

"The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotope, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer."

Washington Water Supply Outlook

April 2008

General Outlook

Washington remained in a deep freeze through the month of March with average temperatures 4-6 degrees below normal. Even more importantly daily maximum temperatures were also 4-6 degrees below average. The cold temperatures helped maintain and even build on a snowpack that was already above average in most locations. Paradise SNOTEL site exceeded 100 inches of snow-water-content for only the 3rd time since the 1981 installation. The current record of 123.1 inches was set on May 7, 1997. The Central Puget Sound area set a new record high water content for April 1 at 204% of average, exceeding the previous high of 197% in 1974. 15 SNOTEL sites across the state are sporting record high snowpack as well. NOAA - Climate Prediction Center is forecasting below average temperatures and above average precipitation for the rest of April.

Snowpack

The April 1 statewide SNOTEL readings were 142% of average. The Similkameen River snow surveys reported the lowest readings at 87% of average. Readings in the Cedar River Basin in King County reported the highest at 234% of average. Westside averages from SNOTEL, and April 1 snow surveys, included the North Puget Sound river basins with 134% of average, the Central Puget river basins with 204%, and the Lewis-Cowlitz basins with 168% of average. Snowpack along the east slopes of the Cascade Mountains included the Yakima area with 122% and the Wenatchee area with 100%. Snowpack in the Spokane River Basin was at 144% and the Walla Walla River Basin had 147% of average. Maximum snow cover in Washington was verified at Martin Lake AM near Mt. Baker, with water content of 97.5 inches. The average for this site is 75.6 inches. The highest average in the state was at S.F. Thunder Creek AM with 636% of average. (Indicates a feb 1 – mar 1 decline)

BASIN	PERCENT OF LAST YEAR	PERCENT OF AVERAGE
Spokane	186	144
Newman Lake	414	211
Pend Oreille	157	111
Okanogan	99	97
Methow	92	(95)
Conconully Lake	101	99
Wenatchee	119	(103)
Chelan	98	94
Upper Yakima	142	(126)
Lower Yakima	132	118
Ahtanum Creek	143	(106)
Walla Walla	206	147
Lower Snake	186	120
Cowlitz	155	157
Lewis	165	178
White	126	115
Green	175	160
Puyallup	159	149
Cedar	240	234
Snoqualmie	160	(169)
Skykomish	126	200
Skagit	107	114
Baker	136	(129)
Nooksack	140	144
Olympic Peninsula	127	(137)

Precipitation

During the month of March, the National Weather Service and Natural Resources Conservation Service climate stations reported near to above average precipitation totals throughout Washington river basins. The highest percent of average in the state was at Paradise SNOTEL which reported 177% of average for a total of 20.9 inches. The average for this site is 11.78 inches for March. Conversely, the lowest percent of average was at Tieton Lake Intake with only 27% of average for a total of 0.45 inches of precipitation.

RIVER BASIN	MARCH PERCENT OF AVERAGE	WATER YEAR PERCENT OF AVERAGE
Spokane	129	114
Colville-Pend Oreille	107	104
Okanogan-Methow	85	103
Wenatchee-Chelan	79	96
Upper Yakima	76	100
Lower Yakima	78	102
Walla Walla	106	107
Lower Snake	113	114
Cowlitz-Lewis	106	103
White-Green-Puyallup	102	99
Central Puget Sound	115	108
North Puget Sound	99	99
Olympic Peninsula	79	89

Reservoir

Seasonal reservoir levels in Washington vary greatly due to specific watershed management practices required in preparation for, spring snow melt, irrigation season, fisheries management, power generation, municipal demands and flood control. April 1 storage was essentially unchanged from March 1 numbers due to a colder than average month and much below average runoff. Reservoir storage in the Yakima Basin was 368,000-acre feet, 67% of average for the Upper Reaches and 127,000-acre feet or 84% of average for Rimrock and Bumping Lakes. Storage at the Okanogan reservoirs was 90% of average for April 1. The power generation reservoirs included the following: Coeur d'Alene Lake, 104,000 acre feet, 62% of average and 44% of capacity; Chelan Lake, 134,000-acre feet, 62% of average and 20% of capacity; and the Skagit River reservoirs at 79% of average and 41% of capacity.

BASIN	PERCENT OF CAPACITY	CURRENT STORAGE AS PERCENT OF AVERAGE
Spokane	44	62
Colville-Pend Oreille	54	109
Okanogan-Methow	68	90
Wenatchee-Chelan	20	62
Upper Yakima	44	67
Lower Yakima	55	84
Lower Snake	62	97
North Puget Sound	41	79

For more information contact your local Natural Resources Conservation Service office.

Streamflow

Forecasts vary from 146% of average for the Rex River near Cedar Falls to 87% of average for the Methow near Pateros. April-September forecasts for some Western Washington streams include the Cedar River near Cedar Falls, 146%; White River, 126%; and Skagit River, 105%. Some Eastern Washington streams include the Yakima River near Parker, 117%; Wenatchee River at Plain, 108%; and Spokane River near Post Falls, 120%.

Volumetric forecasts are developed using current, historic and average snowpack, precipitation and streamflow data collected and coordinated by organizations cooperating with NRCS.

Statewide March streamflows were mostly below average due to colder than average temperatures and a lack of snow melt. The S.F. Walla Walla River had the highest reported flows with 135% of average. The Kettle River near Laurier with 31% of average was the lowest in the state. Other streamflows were the following percentage of average as reported by the River Forecast Center: the Cowlitz at Castle Rock, 83%; the Spokane at Spokane, 66%; the Columbia below Rock Island Dam, 60%; and the Cle Elum near Roslyn, 56%.

BASIN	PERCENT OF AVERAGE (50 PERCENT CHANCE OF EXCEEDENCE)
-------	---

Spokane	100-120
Colville-Pend Oreille	96-112
Okanogan-Methow	87-88
Wenatchee-Chelan	94-107
Upper Yakima	123-128
Lower Yakima	106-119
Walla Walla	113-121
Lower Snake	107-120
Cowlitz-Lewis	101-124
White-Green-Puyallup	126-133
Central Puget Sound	136-146
North Puget Sound	100-105
Olympic Peninsula	115-117

STREAM	PERCENT OF AVERAGE MARCH STREAMFLOWS
--------	---

Pend Oreille Below Box Canyon	56
Kettle at Laurier	31
Columbia at Birchbank	68
Spokane at Long Lake	72
Similkameen at Nighthawk	62
Okanogan at Tonasket	40
Methow at Pateros	73
Chelan at Chelan	62
Wenatchee at Pashastin	51
Yakima at Cle Elum	58
Yakima at Parker	58
Naches at Naches	56
Grande Ronde at Troy	69
Snake below Lower Granite Dam	58
SF Walla Walla near Milton Freewater	135
Columbia River at The Dalles	62
Lewis at Ariel	89
Cowlitz below Mayfield Dam	86
Skagit at Concrete	76
Dungeness near Sequim	55

For more information contact your local Natural Resources Conservation Service office.

BASIN SUMMARY OF SNOW COURSE DATA

APRIL 2008

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00	SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
ABERDEEN LAKE CAN.	4000	3/27/08	23	5.7	4.1	5.6	GOAT CREEK	3600	3/31/08	25	7.2	3.5	3.6
AHTANUM R.S.	3100	3/31/08	2	1.0	.0	5.3	GOLD CREEK LAKE	7200	3/29/08	63	21.9	16.9	14.7
ALPINE MEADOWS SNTL	3500	4/01/08	---	73.2	56.8	43.6	GOLD MTN LOOKOUT		4/03/08	53	16.0	9.0	---
AMBROSE	6480	3/25/08	43	13.0	9.4	12.4	GRASS MOUNTAIN #2	2900	3/29/08	68	26.0	.0	10.0
ASHLEY DIVIDE	4820	4/01/08	28	8.6	.6	6.0	GRAVE CREEK	4300	3/31/08	58	22.7	10.4	---
BADGER PASS	6900	3/25/08	111	44.3	32.1	---	GRAVE CRK SNOTEL	4300	4/01/08	59	18.8	9.5	15.6
BADGER PASS SNOTEL	6900	4/01/08	99	39.5	29.1	35.3	GREEN LAKE SNOTEL	6000	4/01/08	84	28.9	23.6	23.0
BAIRD #2	3220	4/01/08	36	11.4	5.1	---	GREYBACK RES CAN.	4700	4/01/08	30	7.8	8.7	9.2
BARRE CREEK	5500	3/25/08	129	49.4	33.3	43.1	GRIFFIN CR DIVIDE	5150	3/25/08	40	13.2	3.7	10.3
BARRE MIDWAY	4600	3/25/08	117	43.8	26.7	33.0	GROUSE CAMP SNOTEL	5380	4/01/08	68	20.8	20.3	19.8
BARRE TRAIL	3800	3/25/08	52	20.5	8.1	7.7	GUNSIGHT LAKE	6300	3/25/08	109	42.7	31.3	39.3
BARKER LAKES SNOTEL	8250	4/01/08	57	14.1	14.0	14.6	HAMILTON HILL CAN.	4550	3/27/08	36	11.3	12.8	14.0
BARNES CREEK CAN.	5320	4/02/08	59	20.0	17.7	20.4	HAND CREEK	5030	3/26/08	43	14.1	7.0	---
BASIN CREEK SNOTEL	7180	4/01/08	32	6.9	6.4	8.7	HAND CREEK SNOTEL	5030	4/01/08	49	14.0	5.1	11.7
BASSOO PEAK	5150	3/25/08	41	14.1	6.6	9.7	HARTS PASS SNOTEL	6500	4/01/08	117	41.5	49.5	46.3
BEAVER CREEK TRAIL	2200	3/30/08	64	27.6	13.7	11.7	HARTS PASS	6500	3/30/08	123	48.0	50.7	42.0
BEAVER PASS	3680	3/30/08	95	36.6	36.6	28.8	HELL ROARING DIVIDE	5770	3/25/08	92	33.4	23.6	29.5
BEAVER PASS SNOTEL	3630	4/01/08	118	45.3	47.1	38.6	HERRIG JUNCTION	4850	3/27/08	89	30.7	22.3	26.0
BLACK MOUNTAIN	7750	3/25/08	45	12.6	16.2	14.6	HIGH RIDGE SNOTEL	4920	4/01/08	105	38.7	18.9	23.1
BLACK PINE SNOTEL	7100	4/01/08	43	13.0	8.7	12.5	HOLBROOK	4530	3/28/08	36	11.6E	.0	8.2
BLACKWALL PILL CAN.	6370	4/01/08	---	33.4	38.5	35.1	HOODOO BASIN SNOTEL	6050	4/01/08	151	51.5	34.5	45.3
BLEWETT PASS #2	4270	3/27/08	45	17.6	12.8	14.7	HUCKLEBERRY SNOTEL	2000	4/01/08	26	4.0	.0	.4
BLEWETT PASS#2SNOTEL	4270	4/01/08	37	19.9	7.8	16.4	HUMBOLDT GLCH SNOTEL	4250	4/01/08	---	24.8	6.7	11.2
BLUE LAKE	5900	3/25/08	65	23.4	18.0	23.7	HURRICANE	4500	3/29/08	70	25.4	18.7	19.1
BRENDA MINE CAN.	4450	4/01/08	---	14.0	15.2	12.5	INTERGAARD	6450	3/28/08	23	6.3	4.5	7.7
BROOKMERE CAN.	3000	3/26/08	22	6.6	8.1	7.9	IRENE'S CAMP	5530	3/26/08	37	9.9	---	---
BROWN TOP AM	6000	3/28/08	164	64.0	69.4	60.8	ISINTOK LAKE CAN.	5100	3/27/08	25	5.7	5.1	7.2
BROWNS PASS		3/26/08	10	3.0	.0	---	JASPER PASS AM	5400	4/02/08	204	93.8	---	82.7
BRUSH CREEK TIMBER	5000	3/26/08	34	11.3	4.6	8.1	JUNE LAKE SNOTEL	3200	4/01/08	---	88.2	43.4	35.7
BULL MOUNTAIN	6600	3/25/08	22	5.9	.0	5.9	KELLER RIDGE	3700	3/27/08	28	7.6	1.3	---
BUMPING LAKE (NEW)	3400	4/01/08	61	27.8	15.7	17.6	KELLOGG PEAK	5560	3/31/08	120	37.0	24.4	29.2
BUMPING RIDGE SNOTEL	4600	4/01/08	102	36.2	27.3	28.6	KISHENEHN	3890	3/30/08	37	11.5	6.1	6.8
BUNCHGRASS MDWSNOTEL	5000	4/01/08	90	28.7	21.7	30.2	KIT CARSON PASTURE	4950	3/24/08	28	8.9	.0	8.1
BURNT MOUNTAIN PIL	4200	4/01/08	74	45.1	15.7	13.7	KLESILKA CAN.	3450	4/01/08	41	14.4	12.7	11.5
BUTTE CREEK #2		3/31/08	39	10.0	7.0	---	KRAFT CREEK SNOTEL	4750	4/01/08	41	15.7	.0	14.1
BUTTERMILK BUTTE	5250	3/27/08	41	12.6	17.2	---	LAMB BUTTE		4/01/08	46	14.8	---	---
CAMP MISERY	6400	3/27/08	135	50.3	38.3	49.3	LESTER CREEK	3100	3/29/08	102	32.6	21.2	21.4
CAYUSE PASS SNOTEL	5240	4/01/08	186	72.3	57.8	---	LIGHTNING LAKE CAN.	3700	3/26/08	44	14.2	14.5	12.0
CEDAR GROVE	3760	3/31/08	56	18.1	7.2	11.4	LOGAN CREEK	4300	3/26/08	33	9.9	4.6	6.7
CHESSMAN RESERVOIR	6200	3/25/08	15	3.9	.5	3.5	LOLO PASS SNOTEL	5240	4/01/08	104	36.7	22.0	30.3
CHEWALAH #2	4930	3/28/08	75	25.8	15.0	---	LONE PINE SNOTEL	3800	4/01/08	160	65.2	38.4	36.4
CHICKEN CREEK	4060	3/27/08	68	23.0	14.3	15.2	LOOKOUT SNOTEL	5140	4/01/08	114	37.6	24.5	31.8
CHIWAUKUM G.S.	2500	3/28/08	34	11.8	9.8	9.2	LOST HORSE MTN CAN.	6300	3/30/08	31	8.7	---	9.4
CITY CABIN	2390	4/01/08	56	22.0	.0	11.1	LOST HORSE SNOTEL	5000	4/01/08	54	19.5	11.0	18.3
CLOUDY PASS AM	6500	4/01/08	104	40.6	43.4	50.1	LOST LAKE SNOTEL	6110	4/01/08	---	64.4	46.2	60.0
COLD CREEK STRIP	6020	3/26/08	30	8.8	---	---	LOUP LOUP CAMPGROUND		3/27/08	24	8.0	10.4	---
COLOCUM PASS	5370	4/02/08	51	16.8	15.0	16.3	LOWER SANDS CREEK #2	3120	3/28/08	93	33.6	16.8	18.9
COMBINATION SNOTEL	5600	4/01/08	26	6.7	.0	4.9	LUBRECHT FOREST NO 3	5450	3/31/08	23	6.8	.0	5.7
COPPER BOTTOM SNOTEL	5200	4/01/08	32	9.9	.0	11.0	LUBRECHT FOREST NO 4	4650	3/31/08	11	2.3	.0	1.3
COPPER CREEK	5700	3/26/08	40	13.8	.0	13.3	LUBRECHT FOREST NO 6	4040	3/31/08	13	3.0	.0	1.6
COPPER MOUNTAIN	7700	3/27/08	39	10.6	7.5	11.2	LUBRECHT HYDROPLT	4200	3/31/08	18	5.6	.0	2.9
CORRAL PASS SNOTEL	6000	4/01/08	110	38.6	33.3	34.9	LUBRECHT SNOTEL	4680	4/01/08	17	5.5	.0	3.6
COTTONWOOD CREEK	6400	3/25/08	25	6.7	6.8	8.3	LYMAN LAKE SNOTEL	5900	4/01/08	160	55.9	66.8	65.4
COUGAR MTN. SNOTEL	3200	4/01/08	101	41.5	12.8	17.7	LYNN LAKE	4000	3/29/08	138	47.0	18.5	20.4
COX VALLEY	4500	3/31/08	129	49.4	43.8	38.7	MARIAS PASS	5250	3/28/08	56	18.9	11.5	16.8
COYOTE HILL	4200	3/28/08	31	11.2	2.4	8.7	MARTEN LAKE AM	3600	4/02/08	212	97.5	75.6	71.7
DALY CREEK SNOTEL	5780	4/01/08	46	13.7	8.1	11.1	MARTEN RIDGE SNOTEL	3520	4/01/08	169	81.0	55.0	---
DEER PARK	5200	3/26/08	73	28.4	21.7	18.8	MAZAMA		3/25/08	21	9.8	6.3	---
DESERT MOUNTAIN	5600	3/26/08	51	16.6	11.2	14.7	MCCULLOCH CAN.	4200	3/31/08	22	5.8	3.5	6.1
DEVILS PARK	5900	3/28/08	116	45.6	49.3	44.2	MEADOWS CABIN	1900	3/30/08	28	11.8	.0	4.0
DISAULT PASS		3/26/08	25	6.8	3.9	---	MEADOWS PASS SNOTEL	3240	4/01/08	129	55.1	26.5	23.9
DISCOVERY BASIN	7050	3/28/08	33	8.4	9.3	10.4	MERRITT	2140	3/31/08	22	6.6	9.8	12.1
DIX HILL	6400	3/30/08	39	12.2	4.3	10.3	METEOR		3/31/08	22	6.6	.0	---
DOCK BUTTE AM	3800	4/02/08	190	87.4	58.3	60.1	MICA CREEK SNOTEL	4510	4/01/08	111	39.4	21.5	25.1
DOMMERIE FLATS	2200	3/31/08	18	8.6	.0	3.8	MINERAL CREEK	4000	3/27/08	57	19.5	4.6	17.4
DUNCAN RIDGE	5370	3/26/08	23	7.0	---	---	MINERS RIDGE SNOTEL	6200	4/01/08	157	51.2	52.6	53.0
DUNGENESS SNOTEL	4100	4/01/08	55	15.4	5.2	8.6	MISSEZULA MTN CAN.	5080	3/27/08	28	6.4	8.3	9.5
EAST PORK R.S.	5400	3/28/08	23	6.3	.4	4.7	MISSION CREEK CAN.	5840	4/01/08	---	18.6	18.2	20.0
EASY PASS AM	5200	4/02/08	142	65.3	---	81.0	MISSION RIDGE	5000	3/28/08	52	18.7	15.7	17.4
EL DORADO MINE	7800	3/29/08	44	13.1	10.3	20.2	MONASHEE PASS CAN.	4500	4/02/08	41	13.2	12.1	13.5
ELBOW LAKE SNOTEL	3200	4/01/08	140	62.3	44.5	39.2	MORRISSEY RIDGE CAN.	6100	4/01/08	---	27.6	26.4	27.8
EMERY CREEK	4350	3/26/08	51	17.6	11.1	---	MORSE LAKE SNOTEL	5400	4/01/08	148	61.9	49.7	55.5
EMERY CREEK SNOTEL	4350	4/01/08	59	17.7	8.9	15.3	MOSES MOUNTAIN (2)	4800	3/27/08	48	14.5	14.5	22.7
ENDERBY CAN.	5800	3/29/08	115	43.7	41.7	40.1	MOSES MTN SNOTEL	4800	4/01/08	48	12.5	15.5	15.9
ESPERON CK. MID CAN.	4250	3/29/08	40	12.4	13.2	14.6	MOSES PEAK	6650	3/27/08	63	21.6	21.0	15.0
ESPERON CK. UP CAN.	5050	3/29/08	44	13.8	14.6	17.1	MOSQUITO RDG SNOTEL	5200	4/01/08	---	43.4	30.4	35.8
FARRON CAN.	4000	3/28/08	37	12.1	10.6	12.5	MOULTON RESERVOIR	6850	3/27/08	30	7.3	3.1	6.9
FATTY CREEK	5500	3/28/08	75	23.9	18.2	24.3	MOUNT BLUM AM	5800	4/02/08	156	71.8		

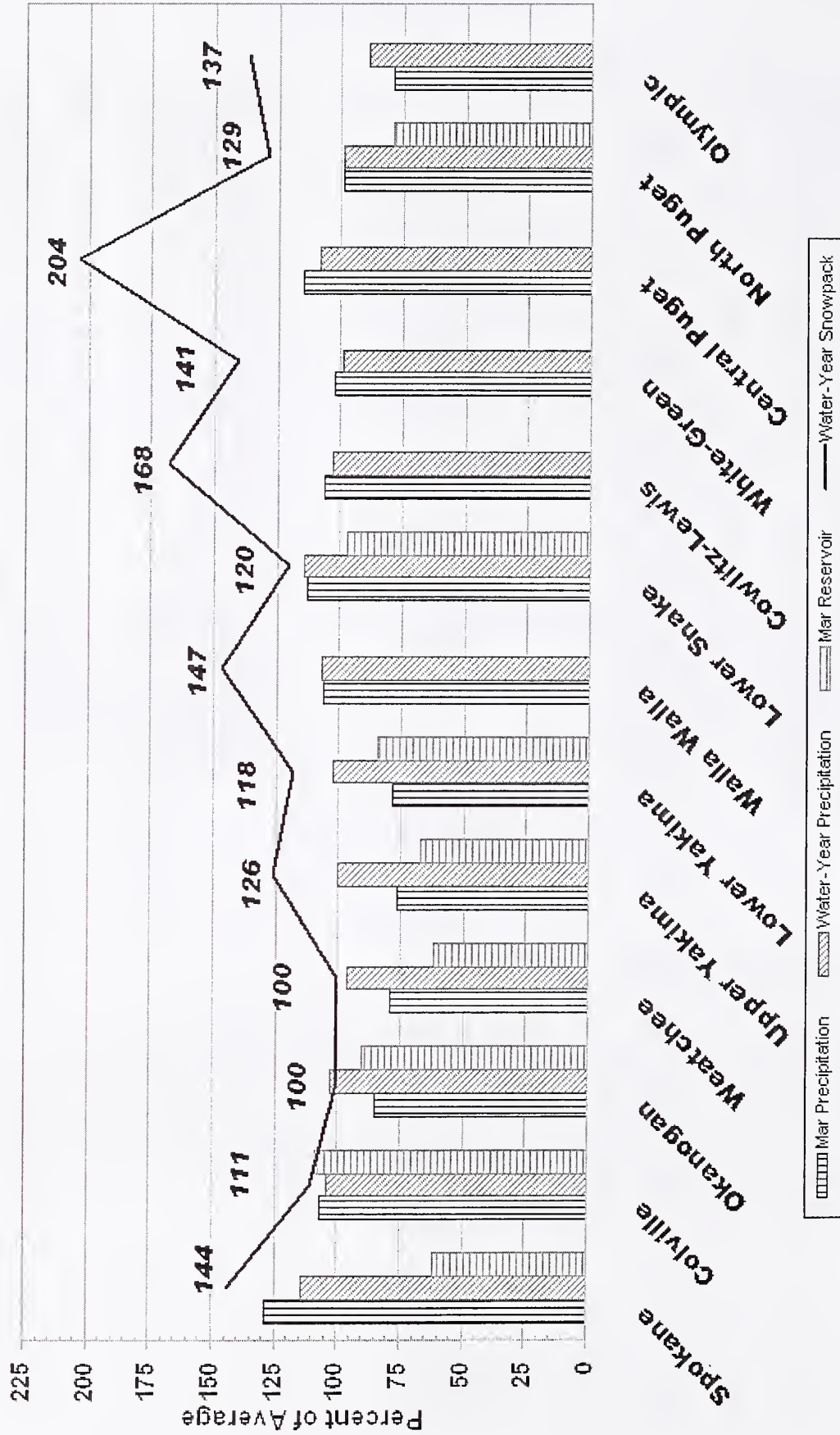
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00	SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
NEZ PERCE CMP SNOTEL	5650	4/01/08	52	16.9	9.9	14.7	SOUTH BALDY	4920	4/01/08	87	29.6	--	--
NEZ PERCE PASS	6570	3/24/08	57	17.8	8.8	17.8	SPENCER MDW SNOTEL	3400	4/01/08	148	61.0	35.4	30.8
NOISY BASIN	6040	3/27/08	125	44.7	35.1	--	SPIRIT LAKE SNOTEL	3100	4/01/08	55	29.6	.0	3.9
NOISY BASIN SNOTEL	6040	4/01/08	129	39.3	33.7	40.9	SPOTTED BEAR MTN.	7000	3/25/08	43	15.6	6.7	14.1
NORTH FORK JOCKO	6330	3/28/08	118	41.3E	31.5	42.3	SPRUCE SPGS SNOTEL	5700	4/01/08	78	27.7	8.8	--
OLALLIE MDWS SNOTEL	3960	4/01/08	181	79.7	58.5	55.9	STARVATION MOUNTAIN	6750	3/27/08	51	16.5	18.5	19.5
OPHIR PARK	7150	3/30/08	45	13.8	10.3	16.7	STAHL PEAK SNOTEL	6030	4/01/08	117	39.2	31.3	35.3
OYAMA LAKE CAN.	4100	4/01/08	25	5.7	5.1	6.7	STAMPEDE PASS SNOTEL	3860	4/01/08	139	60.9	40.5	45.3
PARADISE PARK SNOTEL	5500	4/01/08	216	96.2	69.3	71.9	STEMPLE PASS	6600	3/26/08	35	10.3	6.7	10.2
PARK CK RIDGE SNOTEL	4600	4/01/08	125	54.8	54.1	47.6	STEVENS PASS SNOTEL	4070	4/01/08	131	44.7	37.0	42.6
PETERSON MDW SNOTEL	7200	4/01/08	41	9.1	10.3	10.5	STORM LAKE	7780	3/26/08	46	12.4	12.0	13.3
PIGTAIL PEAK SNOTEL	5900	4/01/08	167	65.7	54.1	53.2	STRANGER MOUNTAIN	4230	4/01/08	57	17.2	10.5	12.2
PIKE CREEK SNOTEL	5930	4/01/08	80	28.7	19.9	27.5	STRYKER BASIN	6180	3/29/08	107	38.4	24.3	31.9
PIPESTONE PASS	7200	3/27/08	20	4.2	2.6	5.7	SUMMERLAND RES CAN.	4200	3/27/08	33	9.1	10.0	8.9
POPE RIDGE SNOTEL	3540	4/01/08	57	17.1	15.9	18.4	SUMMIT G.S. #2	4600	3/31/08	45	11.2	8.7	8.4
POSTILL LAKE CAN.	4200	3/31/08	27	7.2	7.2	8.8	SUNSET SNOTEL	5540	4/01/08	--	29.0	16.3	31.5
POTATO HILL SNOTEL	4500	4/01/08	128	45.3	29.1	25.3	SURPRISE LKS SNOTEL	4250	4/01/08	--	66.8	47.0	46.1
QUARTZ PEAK SNOTEL	4700	4/01/08	100	33.1	15.7	21.2	SWAMP CREEK SNOTEL	4000	4/01/08	55	23.8	17.7	16.2
RAGGED MOUNTAIN	4200	4/04/08	94	35.2	--	17.1	TEN MILE LOWER	6600	3/25/08	28	7.1	4.1	7.0
RAGGED MTN SNOTEL	4210	4/01/08	104	36.2	14.3	--	TEN MILE MIDDLE	6800	3/25/08	36	9.1	8.2	11.4
RAGGED RIDGE	3330	3/27/08	52	20.4	.0	4.1	THUNDER BASIN SNOTEL	4200	4/01/08	92	37.3	34.9	33.7
RAINY PASS SNOTEL	4780	4/01/08	103	34.3	38.8	44.0	THUNDER BASIN	4200	3/28/08	75	28.4	23.7	21.9
RAINY PASS	4780	3/29/08	105	40.3	39.6	39.2	THOMPSON CREEK	2500	3/27/08	31	12.0	.0	--
REX RIVER SNOTEL	1900	4/01/08	158	80.1	36.5	31.2	TINKHAM CREEK SNOTEL	3000	4/01/08	129	49.7	29.5	30.0
ROCKER PEAK SNOTEL	8000	4/01/08	51	12.2	12.0	14.3	TOATS COULEE	2850	3/26/08	6	1.8	.0	1.4
ROCKY CREEK AM	2100	4/02/08	112	51.5	33.8	25.7	TOUCHET SNOTEL	5530	4/01/08	115	46.1	22.3	34.7
ROLAND SUMMIT	5120	3/28/08	127	45.1	31.1	36.4	TRINKUS LAKE	6100	3/25/08	116	43.6	36.1	42.0
ROUND TOP MTN	4020	3/27/08	68	26.5	6.5	--	TROUGH #2 SNOTEL	5310	4/01/08	23	6.4	6.0	10.0
RUSTY CREEK	4000	3/24/08	19	5.4	4.2	5.5	TROUT CREEK CAN.	5650	3/28/08	29	7.9	8.2	7.2
SF THUNDER CK AM	2200	4/02/08	58	26.7	--	4.2	TRUMAN CREEK	4060	4/01/08	25	7.2	.4	3.7
SADDLE MTN SNOTEL	7900	4/01/08	93	29.5	19.9	25.8	TUNNEL AVENUE	2450	4/01/08	75	27.8	17.2	19.2
SALMON MDWS SNOTEL	4500	4/01/08	38	9.7	9.5	11.1	TV MOUNTAIN	6800	3/28/08	62	20.1	15.1	18.3
SASSE RIDGE SNOTEL	4200	4/01/08	105	39.9	32.6	37.3	TWELVEMILE SNOTEL	5600	4/01/08	70	25.8	9.5	17.5
SATUS PASS	4030	3/28/08	59	22.8	4.5	--	TWIN CAMP	4100	3/29/08	89	33.5	20.6	24.1
SAVAGE PASS SNOTEL	6170	4/01/08	103	33.7	20.1	26.5	TWIN CREEKS	3580	3/25/08	41	16.2	4.2	9.6
SAWMILL RIDGE	4700	3/29/08	89	33.5	27.3	33.5	TWIN LAKES SNOTEL	6400	4/01/08	134	51.8	33.5	39.7
SAWMILL RIDGE SNOTEL	4630	4/01/08	138	61.6	51.1	--	TWIN SPIRIT DIVIDE	3480	3/30/08	62	19.8	--	12.1
SCHREIBERS MDW AM	3400	4/02/08	156	71.8	67.6	52.6	UPPER HOLLAND LAKE	6200	3/25/08	87	33.6	25.6	34.6
SENTINEL BT SNOTEL	4920	4/01/08	43	8.5	7.5	--	UPPER WHEELER SNOTEL	4400	4/01/08	50	13.9	11.3	13.1
SHEEP CANYON SNOTEL	4050	4/01/08	--	73.3	33.8	37.8	VULCAN MTN	4660	3/31/08	36	11.4	11.4	--
SHERWIN SNOTEL	3200	4/01/08	--	16.5	.5	10.1	VULCAN ROAD	3840	3/31/08	25	7.7	7.9	--
SILVER STAR MTN CAN.	5600	3/30/08	87	30.8	29.2	29.9	WARM SPRINGS SNOTEL	7800	4/01/08	70	20.5	21.3	21.2
SKALKAHO SNOTEL	7260	4/01/08	78	26.3	19.5	24.3	WATSON LAKES AM	4500	4/02/08	184	84.6	58.3	61.7
SKITWISH RIDGE	5110	3/28/08	134	49.6	25.7	30.2	WATERHOLE SNOTEL	5000	4/01/08	125	51.2	45.1	35.3
SKOOKUM CREEK SNOTEL	3920	4/01/08	152	75.0	24.2	26.3	WEASEL DIVIDE	5450	3/31/08	96	34.2	25.5	32.9
SKOOKUM LAKES	4230	4/01/08	72	24.0	7.9	--	WHITE PASS ES SNOTEL	4500	4/01/08	83	29.5	20.9	23.9
SLIDE ROCK MOUNTAIN	7100	3/28/08	48	15.7	9.9	15.5	WHITE ROCKS MTN CAN.	7200	3/29/08	62	21.1	22.7	23.1
SOURDOUGH GUL SNOTEL	4000	4/01/08	24	9.2	.0	--							

2008 Western Snow Conference

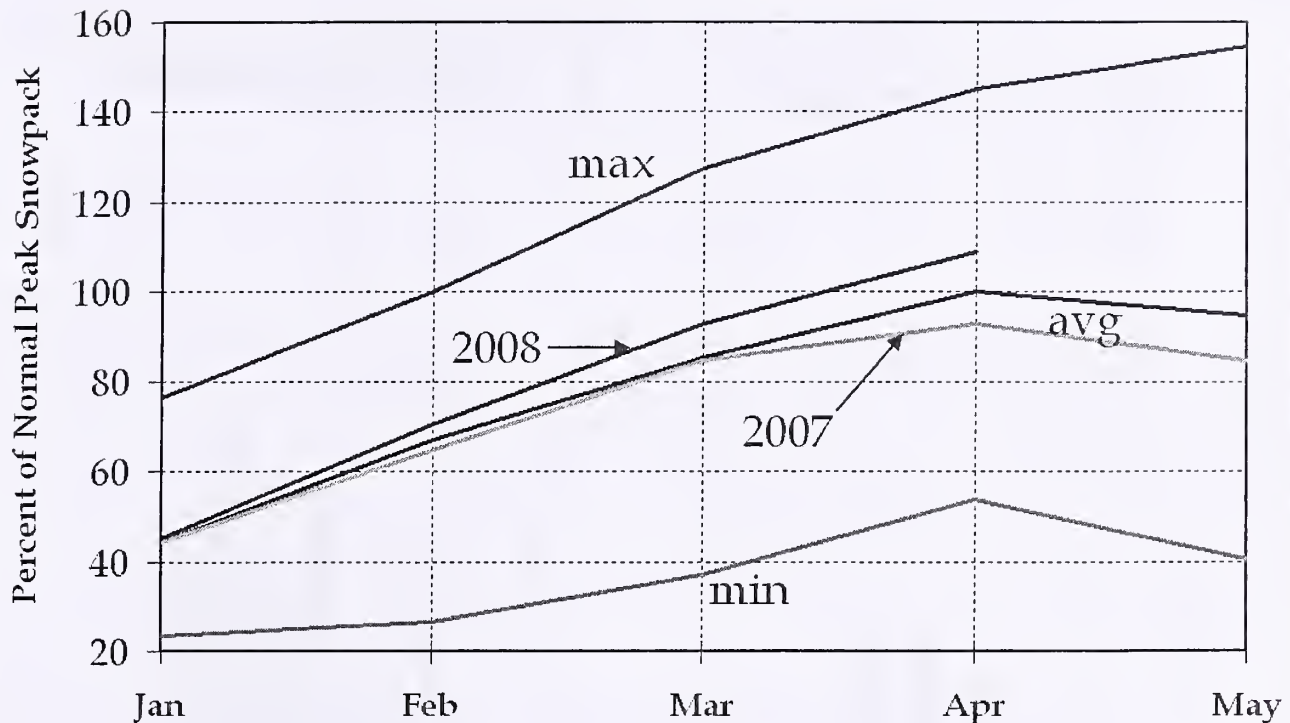
The 76th annual Western Snow Conference will be in Hood River, Oregon April 14-17. The theme of this year's conference is "Working Across Boundaries". A short course workshop titled "Understanding/Using Mountain Soil Moisture Data" will be held on Monday, April 14, and will provide a forum of continued education for the relationship between soil and water. The North Pacific Area of the Western Snow Conference is the host for this conference. The Conference Hotel is at the Best Western Hood River Inn, 541-386-2200 or 800-828-7873. Space is limited so sign-up early. Additional information on conference is available on the Western Snow Conference web page: <http://www.westernsnowconference.org/>

April 1, 2008 - Snowpack, Precipitation and Reservoir Conditions at a Glance

(Water Year = October 1, 2007 - Current Date)



Columbia above The Dalles



April 1, 2008

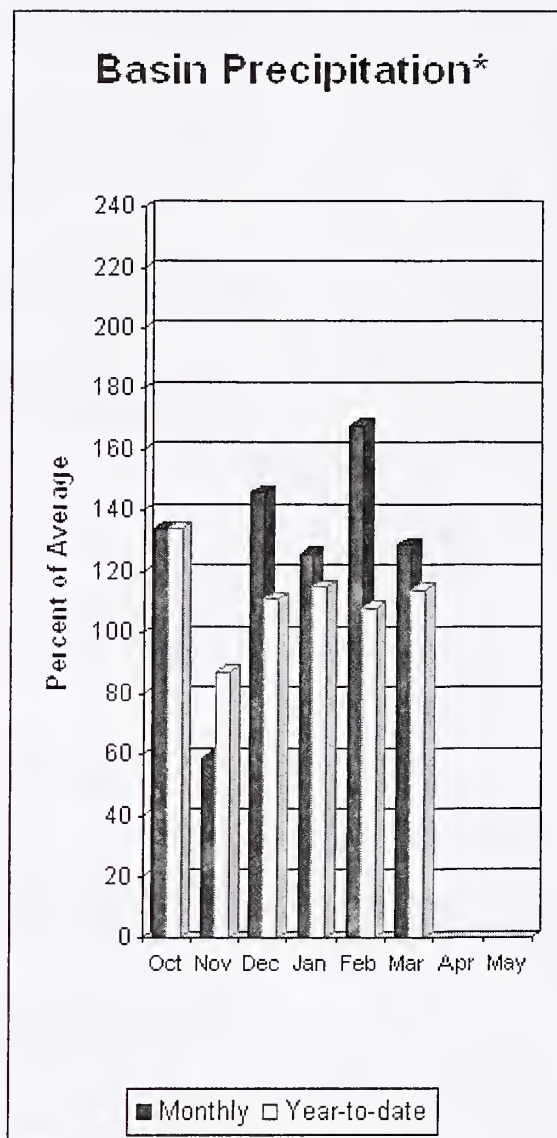
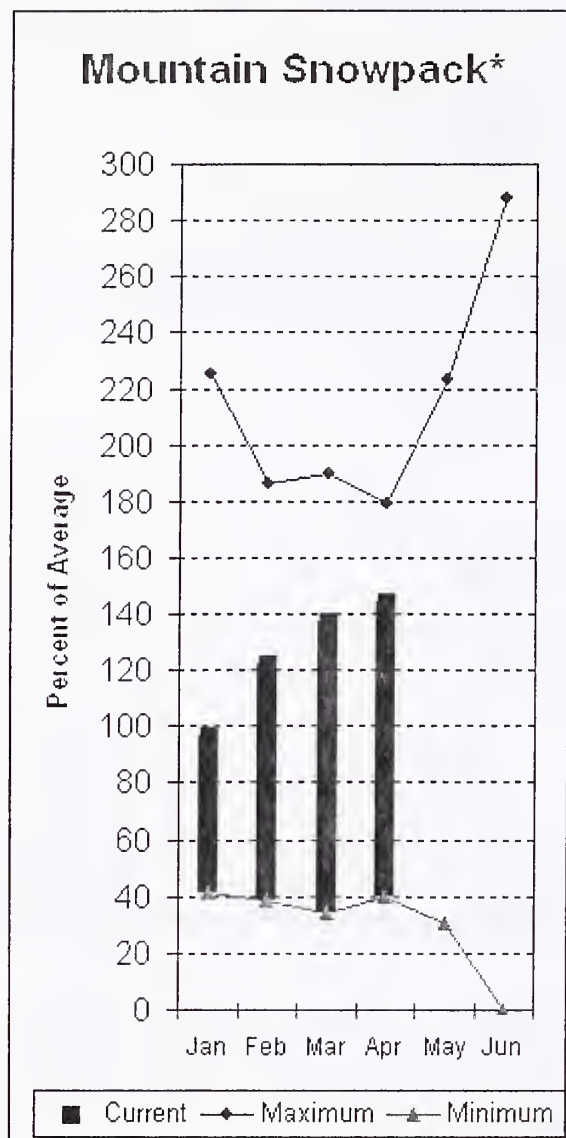
The Columbia Basin snowpack charts are produced, using only automated data. These data are telemetered via remote collection sites in Canada and the United States. The data are provisional, until they are officially released by the responsible data collection agency.

Overall, snow conditions in the Columbia Basin didn't change from last month. The combined snowpack above The Dalles is still at 109 percent of average, compared to 93 percent last year. However, the basin snow pack distribution changed. The Canadian, Kootenay and Salmon snow packs decreased from the March 1 snowpack percentages. Conversely, there were significant snow pack gains in the Spokane, Upper Snake, Clearwater, John Day and Deschutes basins. The Pend Oreille and North Cascades snow packs held their own. The Columbia Basin snowpack is currently at 109% of its peak snow water equivalent.

The snowpack in the Columbia Basin above Castlegar is at 103 percent of average. This compares to 115 percent last year and 108 percent last month. For the basin above Grand Coulee, the snowpack is at 106 percent of average, compared to 103 percent last year and 107 percent last month. The Snake River snowpack above Ice Harbor is at 114 percent of average, compared to 68 percent last year and 110 percent last month. The Kettle snowpack is once again the lowest at 99 percent of average, while the snowpack in the Deschutes continues to be the highest at 152 percent. It's a good year when the lowest basin's snow pack is at 99% of normal!

Overall, the 2008 water supply potential within the Columbia Basin continues to look very good. Additionally, colder temperatures look to produce a normal runoff distribution this year, compared to the earlier melt pattern that we've seen in the last few years.

Spokane River Basin



*Based on selected stations

The April 1 forecasts for summer runoff within the Spokane River Basin are 120% of average near Post Falls and 119% at Long Lake. The Chamokane River near Long Lake forecasted to have 100% of average flows for the May-August period. The forecast is based on a basin snowpack that is 144% of average and precipitation that is 114% of average for the water year. Precipitation for March was above normal at 129% of average. Streamflow on the Spokane River at Long Lake was 72% of average for March. April 1 storage in Coeur d'Alene Lake was 104,000-acre feet, 62% of average and 44% of capacity. Snowpack at Quartz Peak SNOTEL site was 156% of average with 33.1 inches of water content. Average temperatures in the Spokane basin were 4 degrees below normal for March and 1 degree below normal for the water year.

For more information contact your local Natural Resources Conservation Service office.

Spokane River Basin

Streamflow Forecasts - April 1, 2008

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
=====								
SPOKANE near Post Falls (2)	APR-JUL	2620	2890	3070	120	3250	3520	2550
	APR-SEP	2720	3000	3190	120	3380	3660	2650
SPOKANE at Long Lake (2)	APR-JUL	2810	3150	3380	119	3610	3950	2850
	APR-SEP	3040	3400	3640	119	3880	4240	3070
CHAMOKANE CREEK near Long Lake	MAY-AUG	5.0	8.1	10.2	100	12.3	15.4	10.2

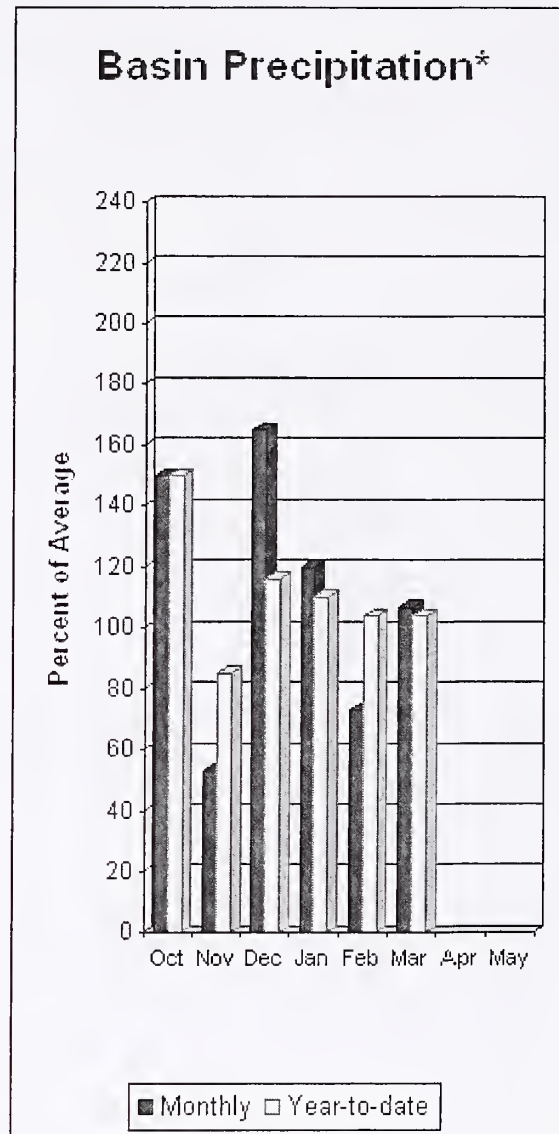
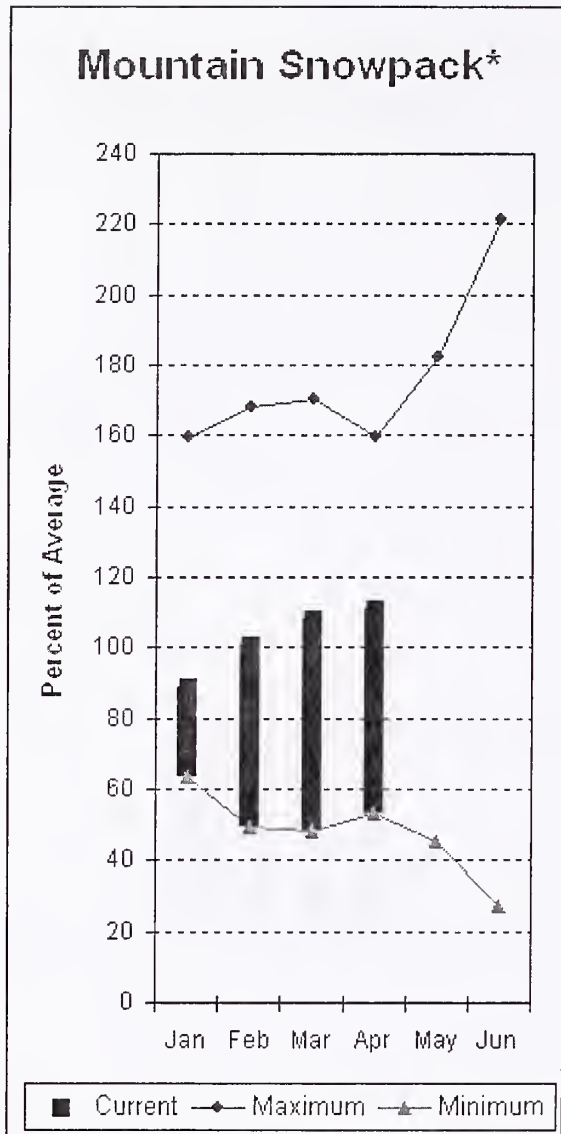
SPOKANE RIVER BASIN Reservoir Storage (1000 AF) - End of March					SPOKANE RIVER BASIN Watershed Snowpack Analysis - April 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					SPOKANE RIVER	17	186	144
					NEWMAN LAKE	2	414	211

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Colville - Pend Oreille River Basins



*Based on selected stations

The April – September average forecast for the Kettle River streamflow is 96%, Colville at Kettle Falls is 117% and Priest River near the town of Priest River is 112%. March streamflow was 56% of average on the Pend Oreille River, 68% on the Columbia at Birchbank and 31% on the Kettle River. April 1 snow cover was 111% of average in the Pend Oreille Basin River Basin and 109 % in the Kettle River Basin. Bunchgrass Meadows SNOTEL site had 28.7.1 inches of snow water on the snow pillow. Normally Bunchgrass would have 30.2 inches on April 1. Precipitation during March was 107% of average, bringing the year-to-date precipitation to 104% of average. Reservoir storage in the basin, including Lake Pend Oreille and Priest Lake was 109% of normal. Average temperatures were 4 degrees below normal for March and 1 degree below normal for the water year.

For more information contact your local Natural Resources Conservation Service office.

Colville - Pend Oreille River Basins

Streamflow Forecasts - April 1, 2008

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	
PEND OREILLE Lake Inflow (2)	APR-JUL	13100	13400	13600	107	13800	14100	12700
	APR-SEP	14200	14600	14800	107	15000	15400	13900
PRIEST near Priest River (1,2)	APR-JUL	685	845	915	112	985	1140	815
	APR-SEP	745	905	975	112	1050	1200	870
PEND OREILLE bl Box Canyon (2)	APR-JUL	12000	13100	13900	108	14700	15800	12900
	APR-SEP	13000	14300	15200	108	16100	17400	14100
COLVILLE at Kettle Falls	APR-JUL	109	133	150	117	167	191	128
	APR-SEP	117	146	165	117	184	215	141
KETTLE near Laurier	APR-JUL	1430	1650	1800	96	1950	2170	1870
	APR-SEP	1490	1730	1890	96	2050	2290	1970
COLUMBIA at Birchbank (1,2)	APR-JUL	28800	33600	35700	100	37800	42600	35700
	APR-SEP	39600	43300	45000	103	46700	50400	43500
COLUMBIA at Grand Coulee Dm (1,2)	APR-JUL	50000	53700	55300	103	56900	60600	53800
	APR-SEP	55600	62200	65200	102	68200	74800	64000

COLVILLE - PEND OREILLE RIVER BASINS Reservoir Storage (1000 AF) - End of March

COLVILLE - PEND OREILLE RIVER BASINS Watershed Snowpack Analysis - April 1, 2008

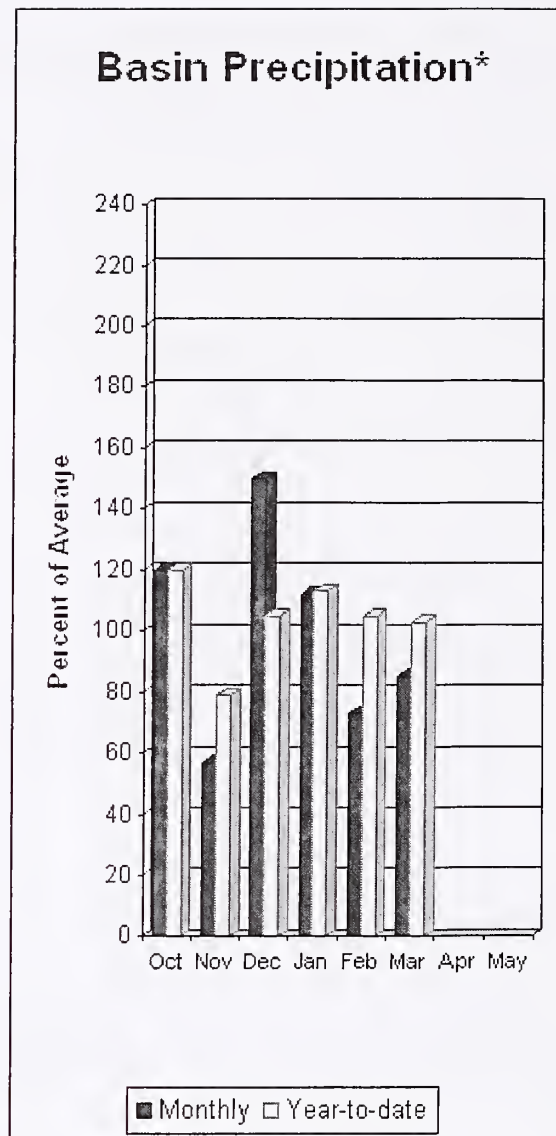
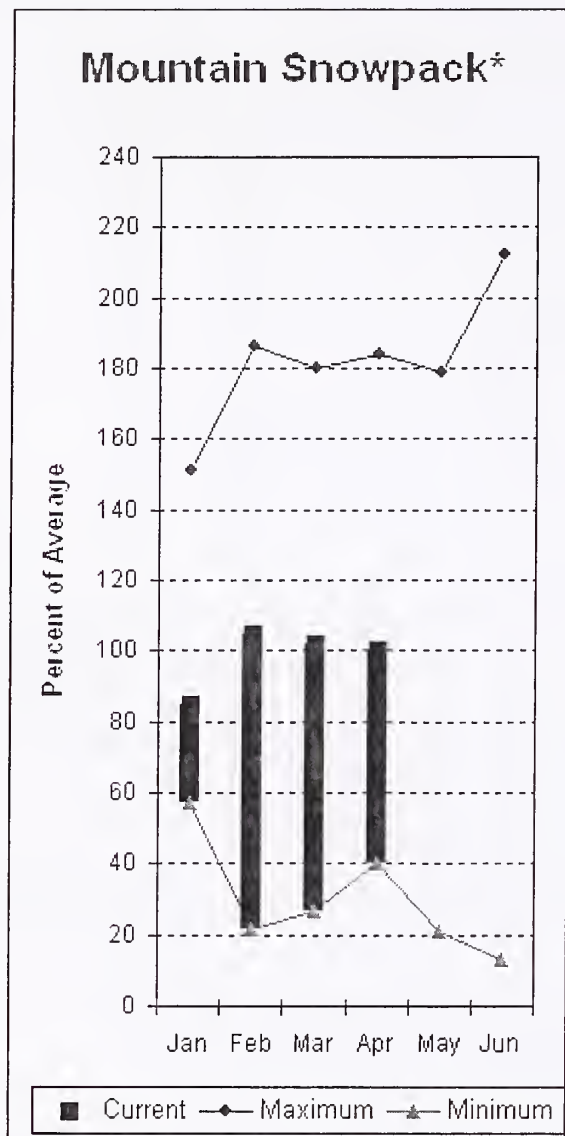
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					COLVILLE RIVER	1	178	141
					PEND OREILLE RIVER	12	168	116
					KETTLE RIVER	5	117	109

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Okanogan - Methow River Basins



*Based on selected stations

Summer runoff average forecast for the Okanogan River is 88%, Similkameen River is 88% and Methow River is 87%. Salmon Creek should be expected to have slightly below normal flows this summer as well. April 1 snow cover on the Okanogan was 97% of average, Omak Creek was 91% and the Methow was 95%. March precipitation in the Okanogan-Methow was 85% of average, with precipitation for the water year at 103% of average. March streamflow for the Methow River was 73% of average, 40% for the Okanogan River and 62% for the Similkameen. Snow-water content at Salmon Meadows SNOTEL was 9.7 inches. Average for this site is 11.1 inches on April 1. Combined storage in the Conconully Reservoirs was 16,000-acre feet, which is 68% of capacity and 90% of the April 1 average. Temperatures were 5 degrees below normal for March and 2 degrees below for the water year.

For more information contact your local Natural Resources Conservation Service office.

Okanogan - Methow River Basins

Streamflow Forecasts - April 1, 2008

Forecast Point	Forecast Period	<===== Drier =====		Future Conditions		===== Wetter =====>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	
Similkameen R nr Nighthawk (1)	APR-JUL	930	1110	1190	88	1270	1450	1350
	APR-SEP	1000	1190	1270	88	1350	1540	1450
Okanogan R nr Tonasket (1)	APR-JUL	980	1260	1390	88	1520	1800	1580
	APR-SEP	1080	1400	1550	88	1700	2020	1770
Okanogan R at Malott (1)	APR-JUL	1030	1310	1440	88	1570	1850	1635
	APR-SEP	1130	1450	1600	88	1750	2070	1826
Methow R nr Pateros	APR-SEP	705	795	855	87	915	1000	985
	APR-JUL	650	735	790	87	845	930	910

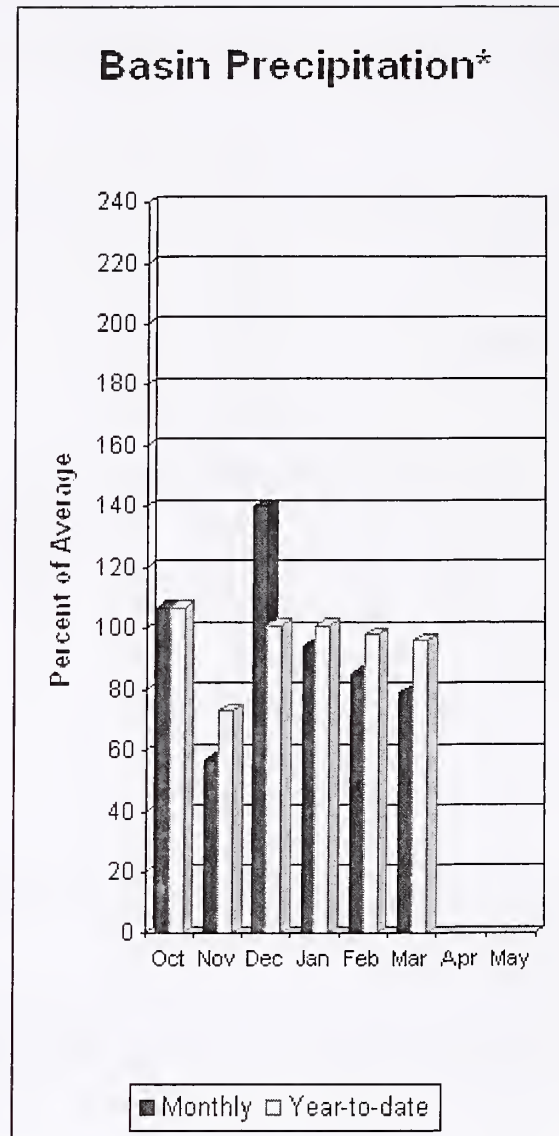
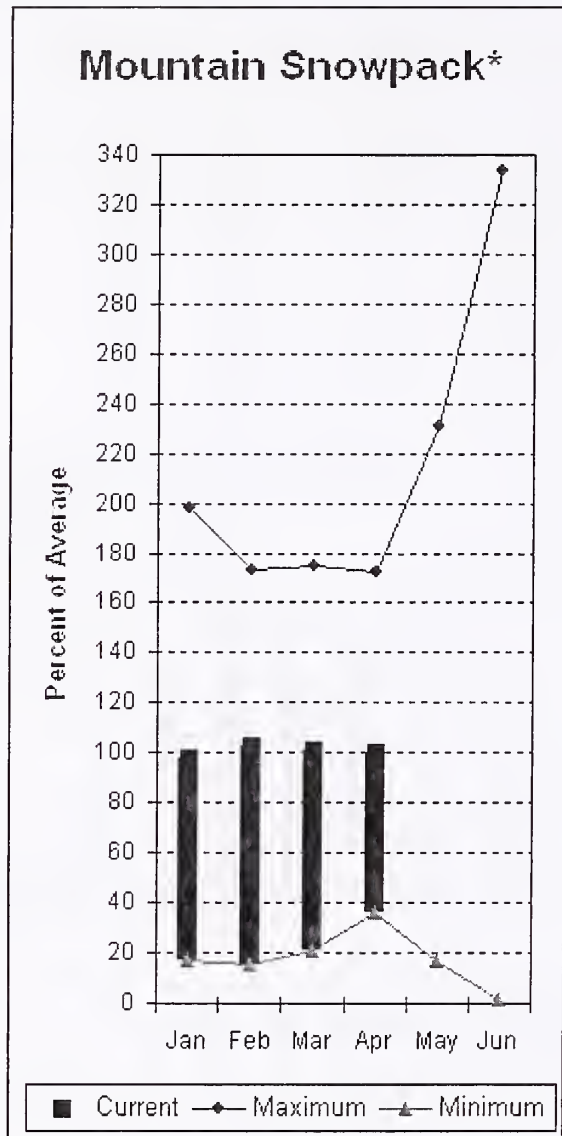
OKANOGAN - METHOW RIVER BASINS Reservoir Storage (1000 AF) - End of March					OKANOGAN - METHOW RIVER BASINS Watershed Snowpack Analysis - April 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
SALMON LAKE	10.5	7.7	9.4	8.4	OKANOGAN RIVER	23	99	97
CONCONULLY RESERVOIR	13.0	8.2	8.8	9.2	OMAK CREEK	3	106	91
					SANPOIL RIVER	0	351	0
					SIMILKAMEEN RIVER	5	85	87
					TOATS COULEE CREEK	1	0	129
					CONCONULLY LAKE	3	101	99
					METHOW RIVER	8	92	95

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Wenatchee - Chelan River Basins



*Based on selected stations

Precipitation during March was 79% of average in the basin and 96% for the year-to-date. Runoff for Entiat River is forecast to be 94% of average for the summer. The April-September average forecast for Chelan River is 96%, Wenatchee River at Plain is 108%, Stehekin River is 98% and Icicle Creek is 100%. Stemilt and Squilchuck creeks should have near average flows as well. March average streamflows on the Chelan River were 62% and on the Wenatchee River 51%. April 1 snowpack in the Wenatchee River Basin was 103% of average; the Chelan, 94%; the Entiat, 93% and Stemilt Creek, 107%. Reservoir storage in Lake Chelan was 134,000-acre feet, 62% of April 1 average and 20% of capacity. Lyman Lake SNOTEL had the most snow water with 55.9 inches of water. This site would normally have 65.4 inches on April 1. Temperatures were 5 degrees below for March and 2 degrees below for the water year.

For more information contact your local Natural Resources Conservation Service office.

Wenatchee - Chelan River Basins

Streamflow Forecasts - April 1, 2008

		<<===== Drier ===== Future Conditions ===== Wetter =====>>							
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
=====									
Stehekin R at Stehekin	APR-JUL	580	645	685	98	725	790	700	
	APR-SEP	715	775	815	98	855	915	830	
Chelan R at Chelan (2)	APR-JUL	920	975	1010	96	1050	1100	1050	
	APR-SEP	1050	1100	1140	96	1180	1230	1190	
Entiat R nr Ardenvoir	APR-JUL	175	190	200	93	210	225	215	
	APR-SEP	199	215	225	94	235	250	240	
Wenatchee R at Plain	APR-JUL	1040	1110	1160	108	1210	1280	1070	
	APR-SEP	1140	1220	1270	108	1320	1400	1180	
Icicle Ck nr Leavenworth	APR-JUL	275	295	310	100	325	345	310	
	APR-SEP	300	325	340	100	355	380	340	
Wenatchee R at Peshastin	APR-JUL	1420	1510	1580	107	1650	1740	1480	
	APR-SEP	1570	1680	1750	107	1820	1930	1630	
Columbia R bl Rock Island Dam (1,2)	APR-JUL	53400	58900	61400	104	63900	69400	59000	
	APR-SEP	62300	68800	71700	103	74600	81100	69500	

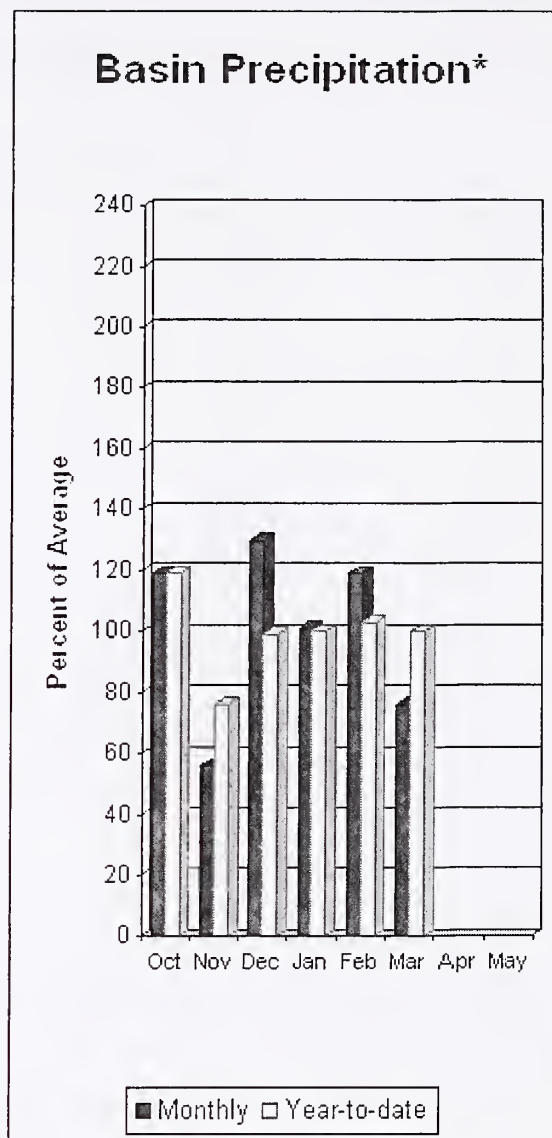
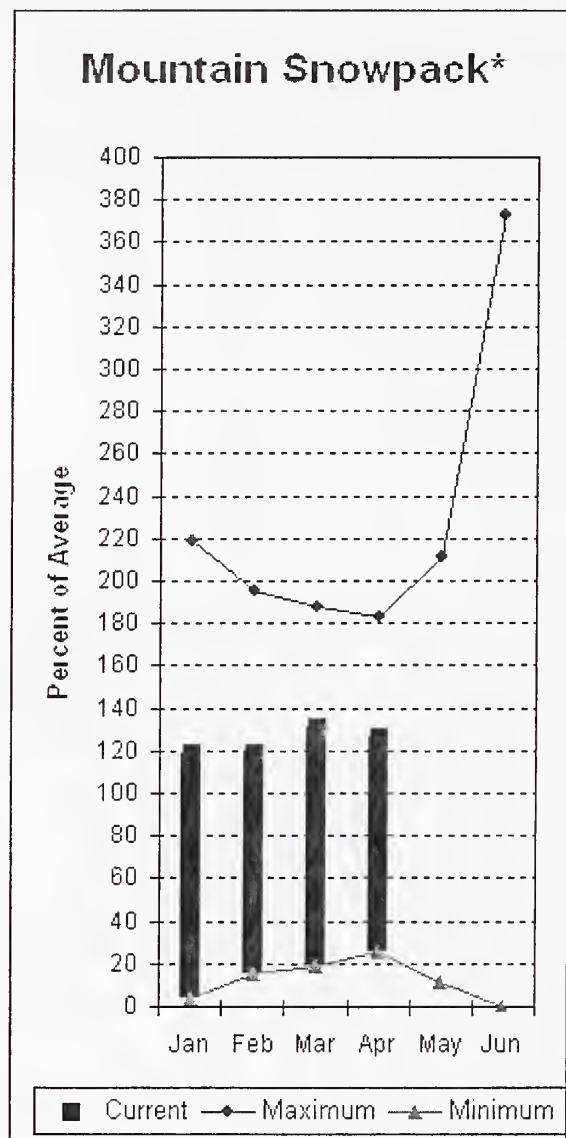
WENATCHEE - CHELAN RIVER BASINS Reservoir Storage (1000 AF) - End of March					WENATCHEE - CHELAN RIVER BASINS Watershed Snowpack Analysis - April 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CHELAN LAKE	676.1	133.8	393.6	216.3	CHELAN LAKE BASIN	7	98	94
					ENTIAT RIVER	1	108	93
					WENATCHEE RIVER	11	119	103
					STEMILT CREEK	2	121	107
					COLOCKUM CREEK	2	110	88

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Upper Yakima River Basin



*Based on selected stations

April 1 reservoir storage for the Upper Yakima reservoirs was 368,000-acre feet, 67% of average. Forecasts for the Yakima River at Cle Elum are 123% of average and the Teanaway River near Cle Elum is at 127%. Lake inflows are all forecasted to be above average this summer. March streamflows within the basin were Yakima near Cle Elum at 58% and Cle Elum River near Roslyn at 56%. April 1 snowpack was 126% based upon 11 snow course and SNOTEL readings within the Upper Yakima Basin. Precipitation was 76% of average for March and 100% year-to-date for water. Volume forecasts for the Yakima Basin are for natural flow. As such, they may differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

For more information contact your local Natural Resources Conservation Service office.

Upper Yakima River Basin

Streamflow Forecasts - April 1, 2008

		<<===== Drier ===== Future Conditions ===== Wetter =====>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Keechelus Reservoir Inflow (2)	APR-JUL	136	147	155	128	163	174	121
	APR-SEP	149	161	169	127	177	189	133
Kachess Reservoir Inflow (2)	APR-JUL	127	136	142	128	148	157	111
	APR-SEP	138	147	153	128	159	168	120
Cle Elum Lake Inflow (2)	APR-JUL	475	495	510	124	525	545	410
	APR-SEP	515	540	560	124	580	605	450
Yakima R at Cle Elum (2)	APR-JUL	900	970	1020	124	1070	1140	820
	APR-SEP	965	1050	1110	123	1170	1260	900
Teanaway R bl Forks nr Cle Elum	APR-JUL	154	171	183	128	195	210	143
	APR-SEP	157	174	186	127	198	215	146

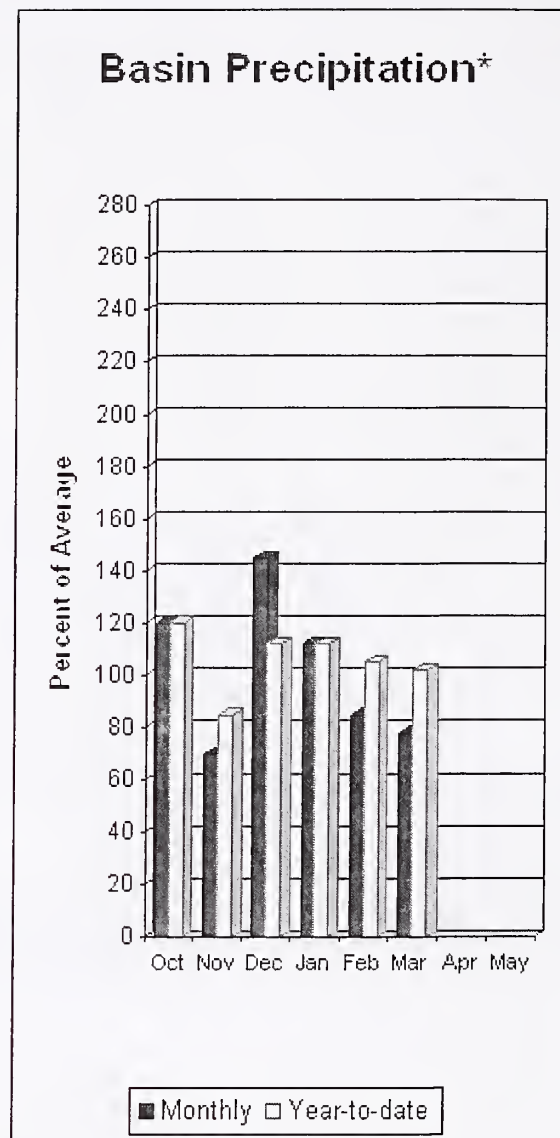
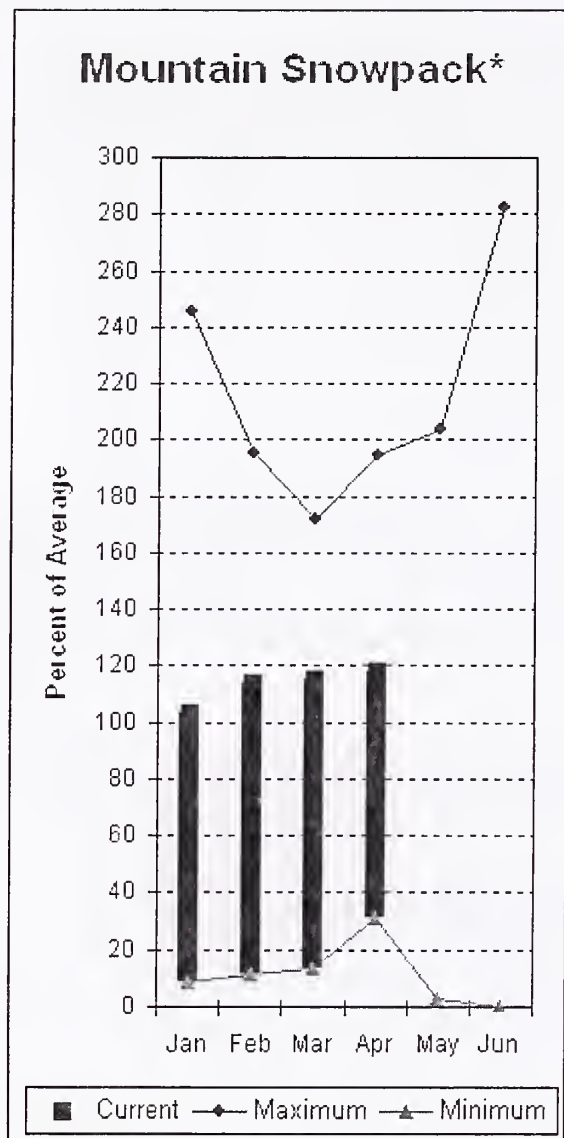
UPPER YAKIMA RIVER BASIN Reservoir Storage (1000 AF) - End of March					UPPER YAKIMA RIVER BASIN Watershed Snowpack Analysis - April 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
KEECHELUS	157.8	69.5	133.6	114.1	UPPER YAKIMA RIVER	11	142	126
KACHESS	239.0	155.3	201.7	169.4				
CLE ELUM	436.9	143.5	367.5	270.1				

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Lower Yakima River Basin



*Based on selected stations

March average streamflows within the basin were: Yakima River near Parker, 58%; Naches River near Naches, 56%; and Yakima River at Kiona, 6254%. April 1 reservoir storage for Bumping and Rimrock reservoirs was 127,000-acre feet, 84% of average. Forecast averages for Yakima River near Parker are 117%; American River near Nile, 108%; Ahtanum Creek, 106%; and Klickitat River near Glenwood, 119%. April 1 snowpack was 118% based upon 8 snow course and SNOTEL readings within the Lower Yakima Basin and Ahtanum Creek reported in at 106% of average. Precipitation was 78% of average for March and 102% year-to-date for water. Temperatures were 5 degrees below normal for March and 2 degrees below for the water year. Volume forecasts for Yakima Basin are for natural flow. As such, they April differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

For more information contact your local Natural Resources Conservation Service office.

Lower Yakima River Basin

Streamflow Forecasts - April 1, 2008

Forecast Point	Forecast Period	<===== Drier =====		Future Conditions		===== Wetter =====>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Bumping Lake Inflow (2)	APR-JUL	121	132	139	114	146	157	122
	APR-SEP	131	142	150	114	158	169	132
American R nr Nile	APR-JUL	103	111	117	108	123	131	108
	APR-SEP	113	121	127	108	133	141	118
Rimrock Lake Inflow (2)	APR-JUL	198	210	220	107	230	240	205
	APR-SEP	235	250	260	108	270	285	240
Naches R nr Naches (2)	APR-JUL	745	800	840	117	880	935	720
	APR-SEP	805	870	910	117	950	1010	780
Ahtanum Ck at Union Gap	APR-JUL	25	29	32	107	35	39	30
	APR-SEP	27	31	34	106	37	41	32
Yakima R nr Parker (2)	APR-JUL	1900	2030	2110	117	2190	2320	1800
	APR-SEP	2100	2230	2320	117	2410	2540	1980
KLICKITAT near Glenwood	APR-JUL	131	142	150	119	158	169	126
	APR-SEP	173	185	194	119	205	215	163

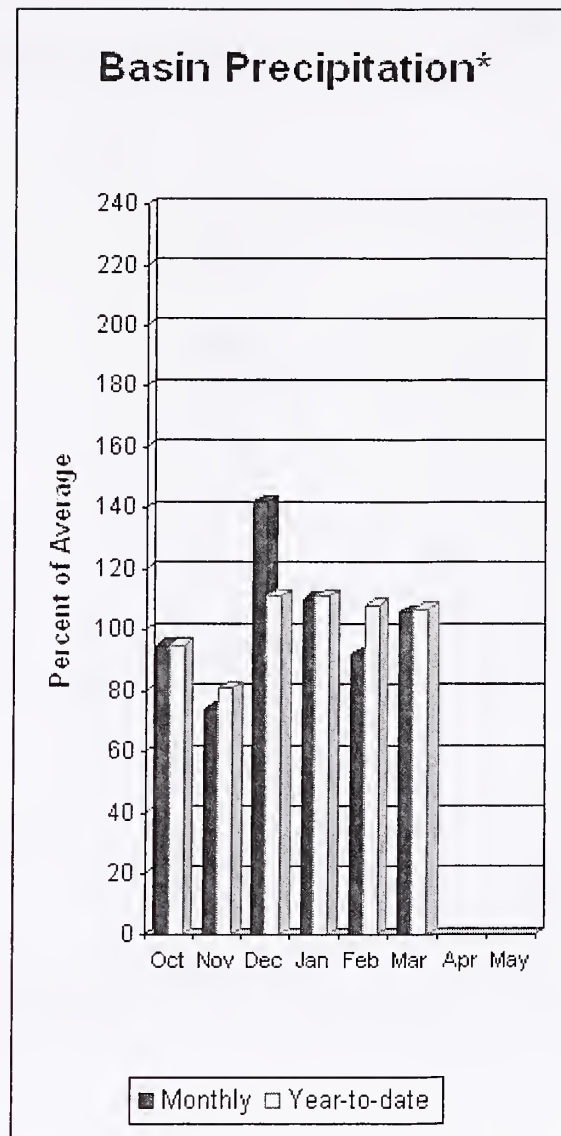
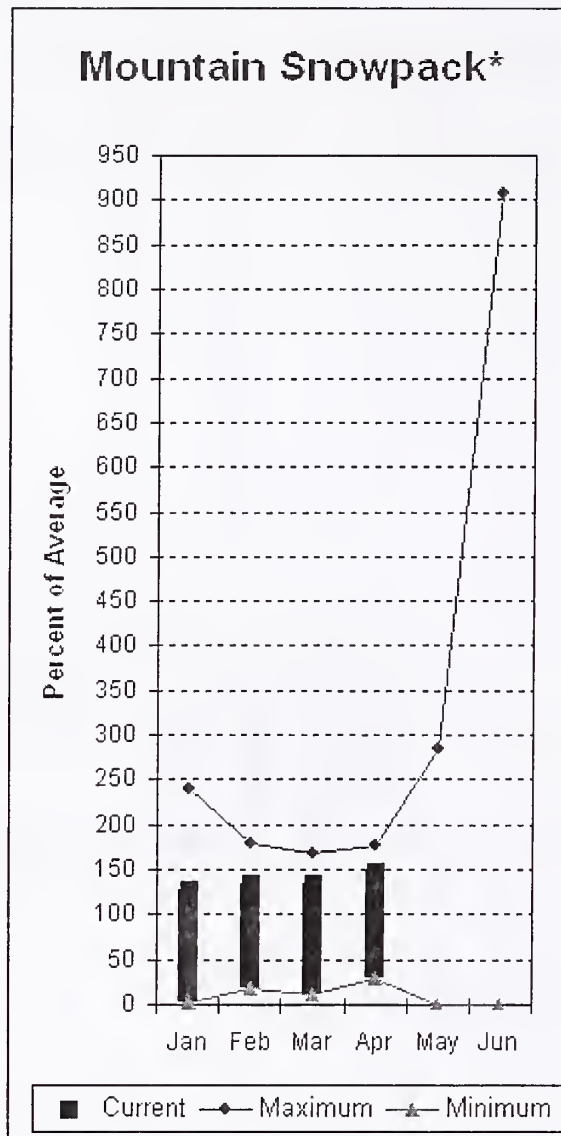
LOWER YAKIMA RIVER BASIN Reservoir Storage (1000 AF) - End of March					LOWER YAKIMA RIVER BASIN Watershed Snowpack Analysis - April 1, 2008		
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average
		This Year	Last Year	Avg			
BUMPING LAKE	33.7	4.8	19.8	13.1			
RIMROCK	198.0	122.3	176.9	138.5			

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Walla Walla River Basin



*Based on selected stations

March precipitation was 106% of average, maintaining the year-to-date precipitation at 107% of average. Snowpack in the basin was 147% of average. Streamflow forecasts are 121% of average for Mill Creek and 113% for the SF Walla Walla near Milton-Freewater. March streamflow was 135% of average for the Walla Walla River. Average temperatures were 4 degrees below normal for March and near average for the water year.

For more information contact your local Natural Resources Conservation Service office.

Walla Walla River Basin

Streamflow Forecasts - April 1, 2008

		<<===== Drier ===== Future Conditions ===== Wetter =====>						
Forecast Point	Forecast Period	Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
=====		=====						
SF Walla Walla R nr Milton-Freewater	APR-SEP	64	71	76	113	81	88	67
Mill Ck nr Walla Walla	APR-JUL	25	29	31	129	33	37	24
	APR-SEP	28	32	34	121	36	40	28

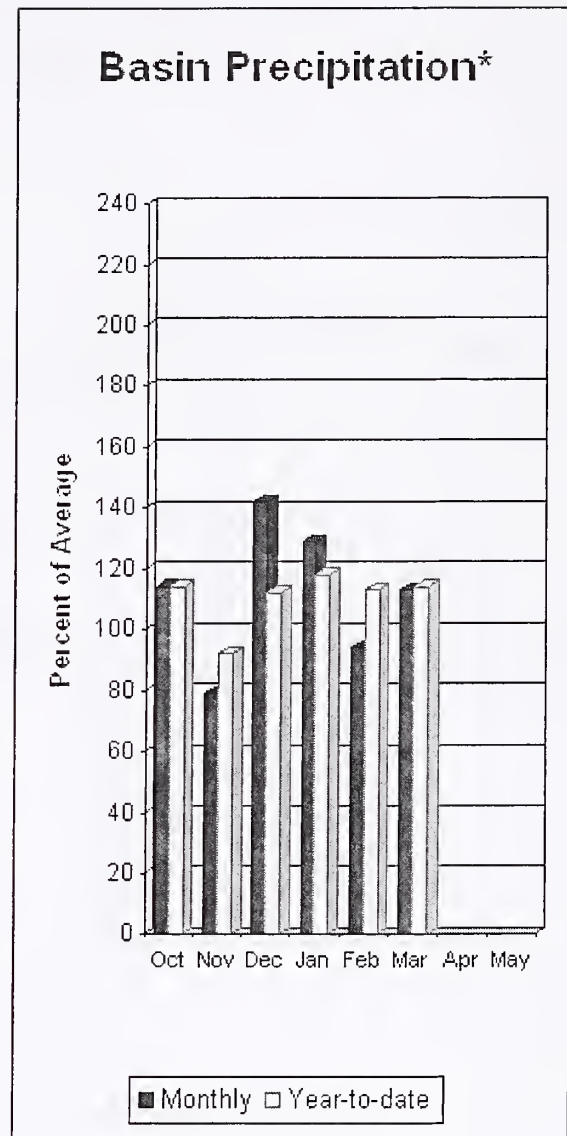
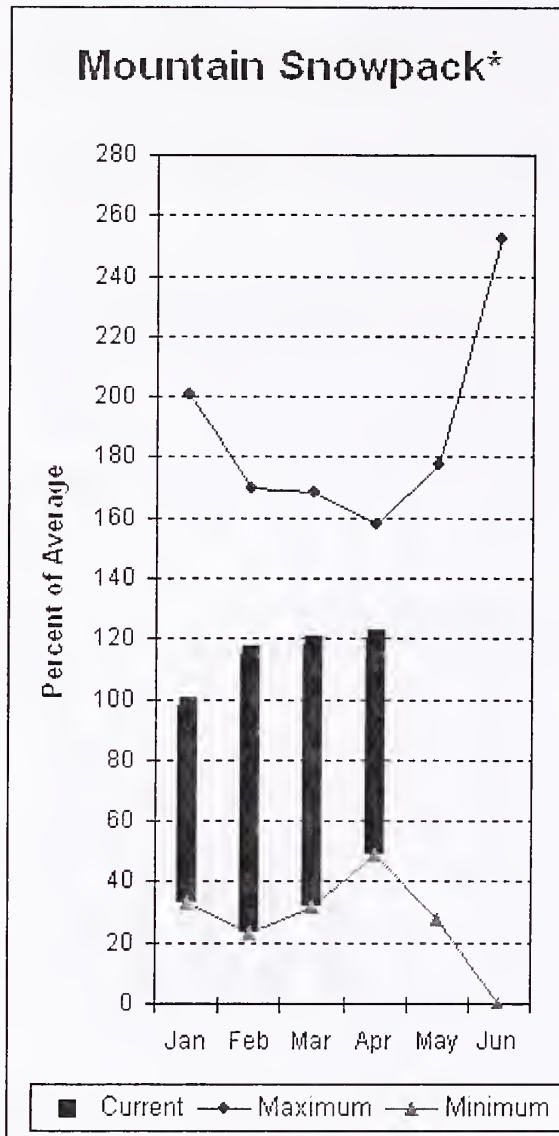
WALLA WALLA RIVER BASIN Reservoir Storage (1000 AF) - End of March					WALLA WALLA RIVER BASIN Watershed Snowpack Analysis - April 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					WALLA WALLA RIVER	2	206	147

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Lower Snake River Basin



*Based on selected stations

The April - September forecast is for 120% for Clearwater River at Spalding. The Snake and Grande Ronde rivers can expect summer flows to be about 107% and 115% of normal respectively. March precipitation was 113% of average, bringing the year-to-date precipitation to 114% of average. April 1 snowpack readings averaged 120% of normal. March streamflow was 58% of average for Snake River below Lower Granite Dam and 69% for Grande Ronde River near Troy. Dworshak Reservoir reported current storage at 97% of average and 62% of capacity. Average temperatures were 3 degrees below normal for March and near average for the water year.

For more information contact your local Natural Resources Conservation Service office.

Lower Snake River Basin

Streamflow Forecasts - April 1, 2008

		<<===== Drier =====		Future Conditions		===== Wetter =====>>		
Forecast Point	Forecast Period	===== Chance Of Exceeding * =====						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Grande Ronde R at Troy	APR-SEP	1210	1460	1580	115	1700	1950	1370
Clearwater R at Spalding	APR-JUL	7510	8500	8950	121	9400	10400	7430
	APR-SEP	7850	8900	9380	120	9860	10900	7850
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	18400	21800	23300	108	24800	28200	21600
	APR-SEP	20200	24000	25700	107	27400	31200	24100

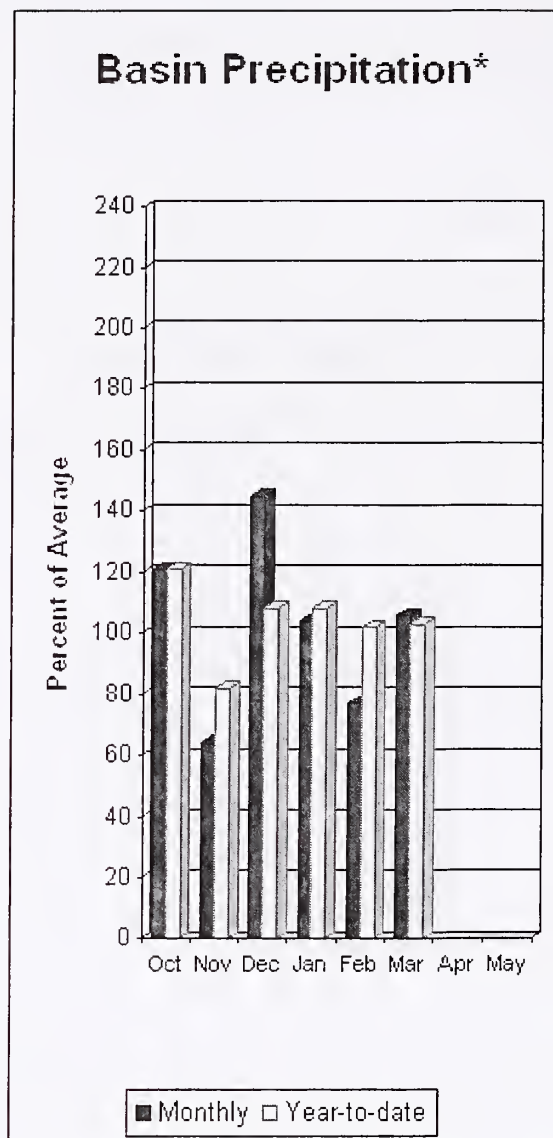
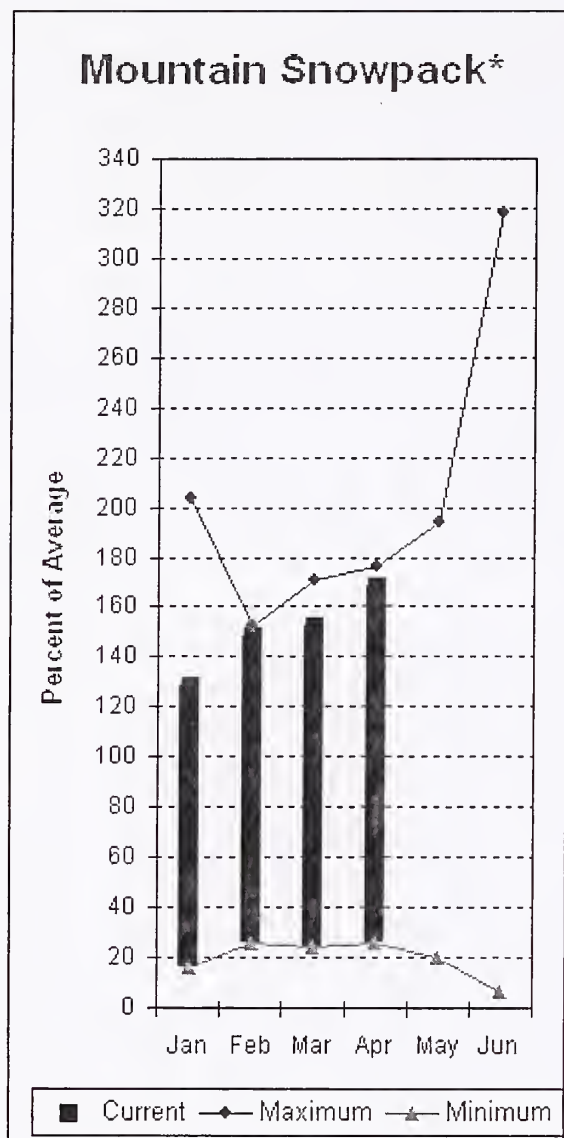
LOWER SNAKE RIVER BASIN Reservoir Storage (1000 AF) - End of March					LOWER SNAKE RIVER BASIN Watershed Snowpack Analysis - April 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					LOWER SNAKE, GRANDE RONDE	16	186	120

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Cowlitz - Lewis River Basins



*Based on selected stations

Forecasts for April – September streamflows within the basin are Lewis River at Ariel, 123% and Cowlitz River at Castle Rock, 120% of average. The Columbia at The Dalles is forecasted to have 101% of average flows this summer. March average streamflow for Cowlitz River was 86% and 89% for Lewis River. The Columbia River at The Dalles was 62% of average. March precipitation was 106% of average and the water-year average was 103%. April 1 snow cover for Cowlitz River was 157%, and Lewis River was 178% of average. Average temperatures have been 3-4 degrees below normal during March and 1 degree below normal for the water year.

For more information contact your local Natural Resources Conservation Service office.

Cowlitz - Lewis River Basins

Streamflow Forecasts - April 1, 2008

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Columbia R at The Dalles (1,2)	APR-JUL	75200	83300	87000	103	90700	98800	84600
	APR-SEP	86400	95700	100000	101	104000	114000	98600
Klickitat near Glenwood	APR-JUL	131	142	150	119	158	169	126
	APR-SEP	173	185	194	119	205	215	163
Lewis at Ariel (2)	APR-JUL	1060	1200	1290	125	1380	1520	1031
	APR-SEP	1220	1360	1450	123	1540	1680	1176
Cowlitz R. bl Mayfield Dam (2)	APR-JUL	1810	2000	2130	126	2260	2450	1689
	APR-SEP	2020	2240	2390	124	2540	2760	1922
Cowlitz R. at Castle Rock (2)	APR-JUL	2450	2660	2800	122	2940	3150	2295
	APR-SEP	2770	3010	3170	120	3330	3570	2639

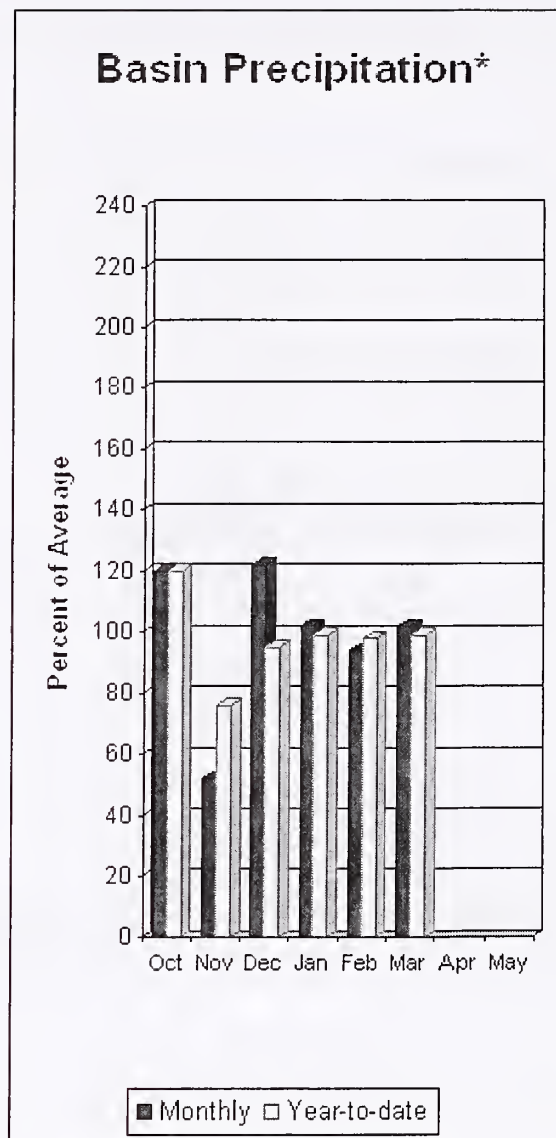
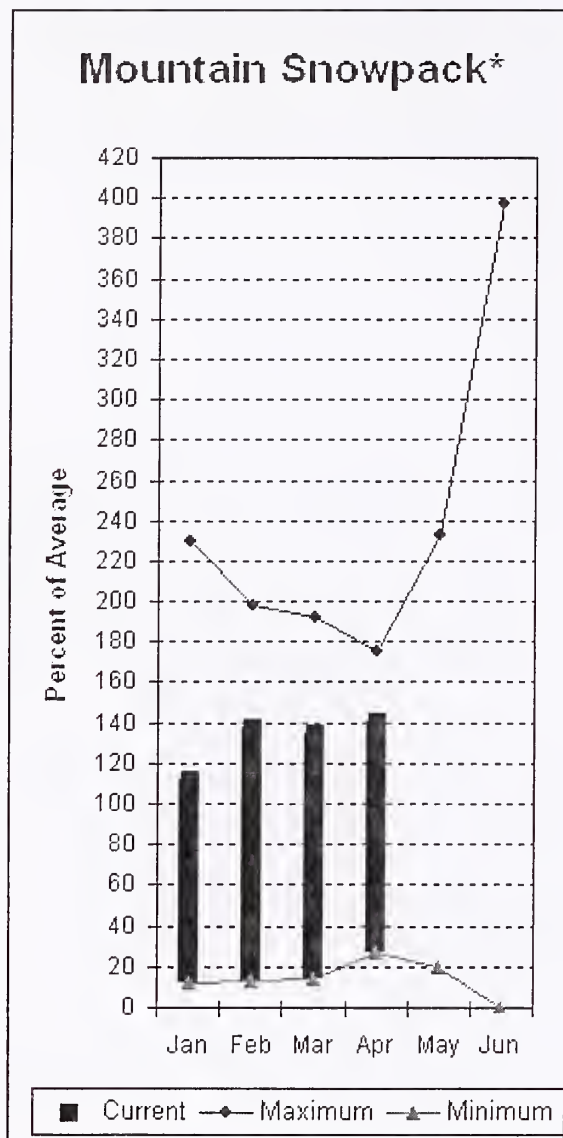
COWLITZ - LEWIS RIVER BASINS Reservoir Storage (1000 AF) - End of March					COWLITZ - LEWIS RIVER BASINS Watershed Snowpack Analysis - April 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
MOSSYROCK	0.0	1001.3	1472.5	---	LEWIS RIVER	5	165	178
SWIFT	0.0	461.7	738.6	---	COWLITZ RIVER	6	155	157
YALE	0.0	377.7	365.0	---				
MERWIN	0.0	412.6	384.1	---				

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

White - Green River Basins



*Based on selected stations

Summer runoff is forecast to be 133% of normal for the Green River below Howard Hanson Dam and 126% for the White River near Buckley. April 1 snowpack was 115% of average for the White River, 149 % for Puyallup River and 160% in the Green River Basin. Water content on April 1 at Corral Pass SNOTEL, at an elevation of 6,000 feet, was 38.6 inches. This site has an April 1 average of 34.9 inches. March precipitation was 102% of average, bringing the water year-to-date to 99% of average for the basins. Average temperatures in the area were 3 degree below normal for March and 1 degree below for the water-year.

For more information contact your local Natural Resources Conservation Service office.

White - Green - Puyallup River Basins

Streamflow Forecasts - April 1, 2008

		<<===== Drier =====		Future Conditions		===== Wetter =====>>		
Forecast Point	Forecast Period	=====		Chance Of Exceeding *		=====		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
=====								
WHITE near Buckley (1,2)	APR-JUL	445	515	550	125	585	655	440
	APR-SEP	580	645	670	126	695	760	534
=====								
GREEN R below Howard Hansen (1,2)	APR-JUL	255	300	320	132	340	385	243
	APR-SEP	295	335	355	133	375	415	268

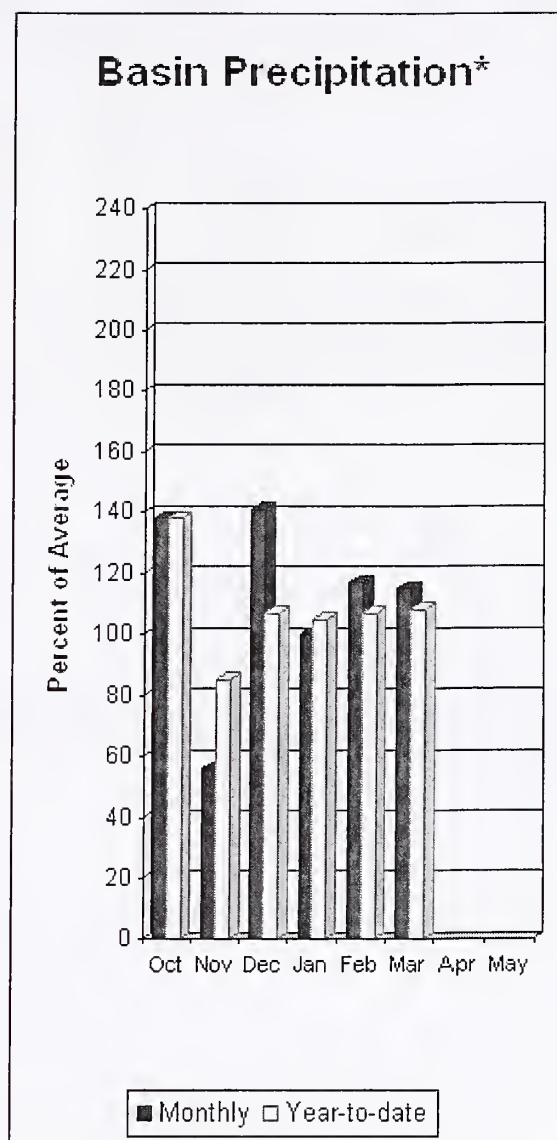
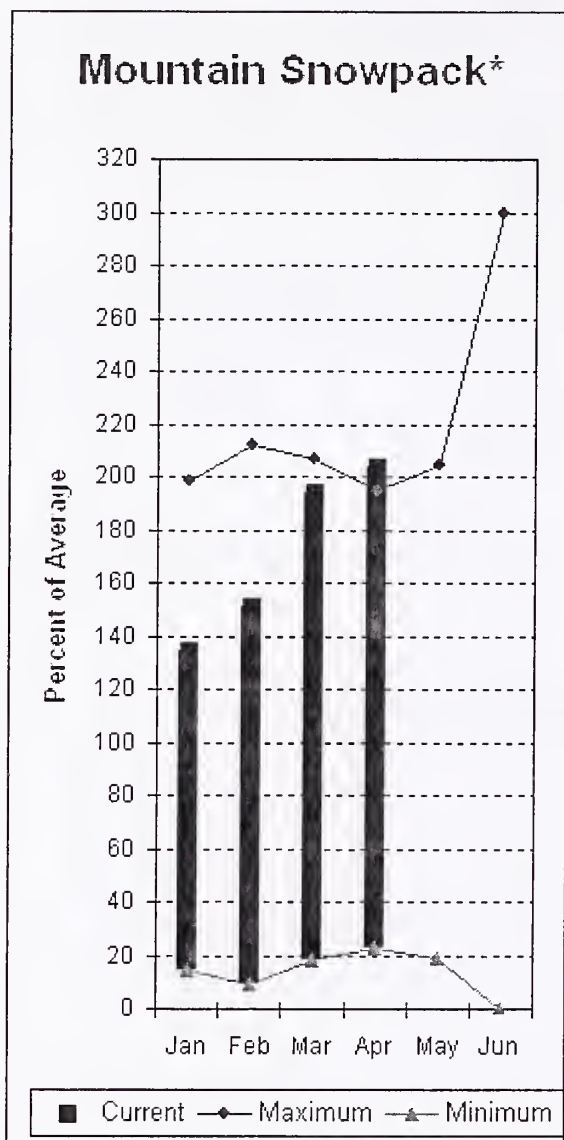
WHITE - GREEN - PUYALLUP RIVER BASINS Reservoir Storage (1000 AF) - End of March					WHITE - GREEN - PUYALLUP RIVER BASINS Watershed Snowpack Analysis - April 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					WHITE RIVER	3	126	115
					GREEN RIVER	7	175	160
					PUYALLUP RIVER	5	159	149

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Central Puget Sound River Basins



*Based on selected stations

Forecast for spring and summer flows are: 138% for Cedar River near Cedar Falls; 146% for Rex River; 136% for South Fork of the Tolt River; and 143% for Cedar River at Cedar Falls. Basin-wide precipitation for March was 115% of average, bringing water-year-to-date to 108% of average. April 1 average snow cover in Cedar River Basin was 234%, Tolt River Basin was 212%, Snoqualmie River Basin was 169%, and Skykomish River Basin was 200%. Rex River SNOTEL site, at 3960 feet, had 80.1 inches of water content. Average April 1 water content is 31.2 inches at Rex River. Rex, Meadows Pass, Mt. Gardner, and Skookum Creek SNOTEL sites all set new record high water content levels for April 1. Temperatures were 3 degrees below average for March and 1 degree below normal for the water-year.

For more information contact your local Natural Resources Conservation Service office.

Central Puget Sound River Basins

Streamflow Forecasts - April 1, 2008

		<===== Drier ===== Future Conditions ===== Wetter =====>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
CEDAR near Cedar Falls	APR-JUL	86	94	100	137	106	114	73
	APR-SEP	94	104	110	138	116	126	80
REX near Cedar Falls	APR-JUL	31	34	36	144	38	41	25
	APR-SEP	35	38	41	146	44	47	28
CEDAR RIVER at Cedar Falls	APR-JUL	79	91	100	135	109	121	74
	APR-SEP	85	96	104	143	112	123	73
SOUTH FORK TOLT near Index	APR-JUL	15.8	18.2	19.8	135	21	24	14.7
	APR-SEP	18.8	21	23	136	25	27	16.9

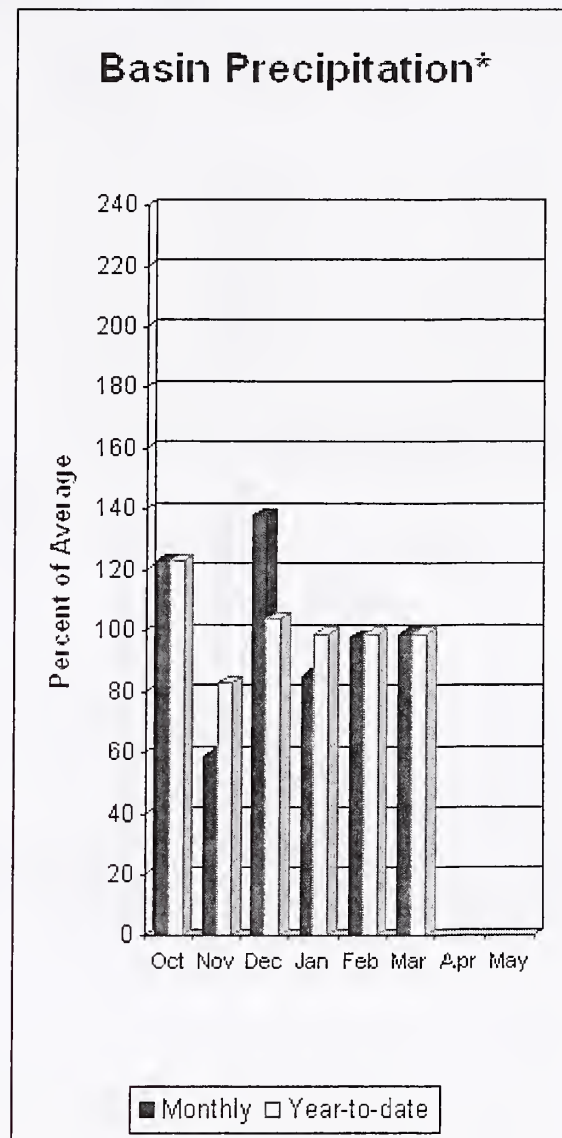
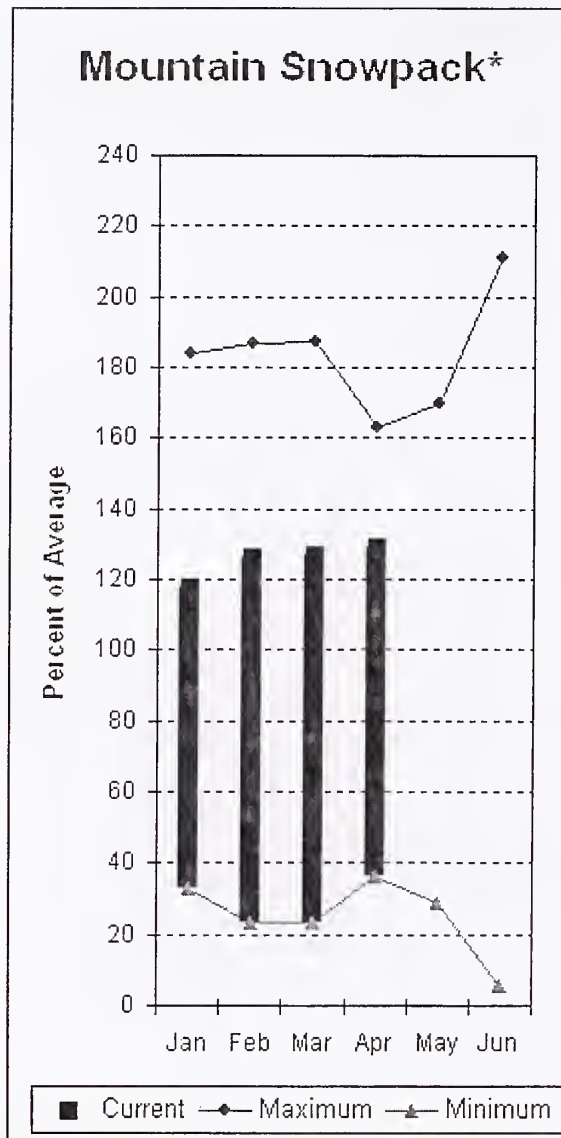
CENTRAL PUGET SOUND RIVER BASINS Reservoir Storage (1000 AF) - End of March					CENTRAL PUGET SOUND RIVER BASINS Watershed Snowpack Analysis - April 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					CEDAR RIVER	6	240	234
					TOLT RIVER	2	183	212
					SNOQUALMIE RIVER	4	160	169
					SKYKOMISH RIVER	2	126	137

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

North Puget Sound River Basins



*Based on selected stations

Forecast for Skagit River streamflow at Newhalem is 105% of average for the spring and summer period. March streamflow in Skagit River was 76% of average. Other forecast points included Baker River at 100% and Thunder Creek at 101% of average. Basin-wide precipitation for March was 99% of average, bringing water-year-to-date to 99% of average. April 1 average snow cover in Skagit River Basin was 114%, and Nooksack River Basin was 144% and the Baker River was 129%. Marten Lake Aerial Marker, at 3,600 feet, had 97.5 inches of water content and 212 inches of snow depth. Average April 1 water content is 71.7 inches at Marten Lake. April 1 Skagit River reservoir storage was 79% of average and 41% of capacity. Average temperatures for March were 3 degrees below normal for the basin and 2 degrees below average for the water year.

For more information contact your local Natural Resources Conservation Service office.

North Puget Sound River Basins

Streamflow Forecasts - April 1, 2008

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	=====		Chance Of Exceeding *		=====		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
=====								
THUNDER CREEK near Newhalem	APR-JUL	205	220	235	100	245	265	234
	APR-SEP	300	320	335	101	345	365	333
=====								
SKAGIT at Newhalem (2)	APR-JUL	1760	1880	1960	105	2040	2160	1864
	APR-SEP	2140	2250	2330	105	2410	2520	2217
=====								
BAKER RIVER near Concrete	APR-JUL	695	775	830	100	880	960	828
	APR-SEP	810	955	1050	100	1150	1290	1050

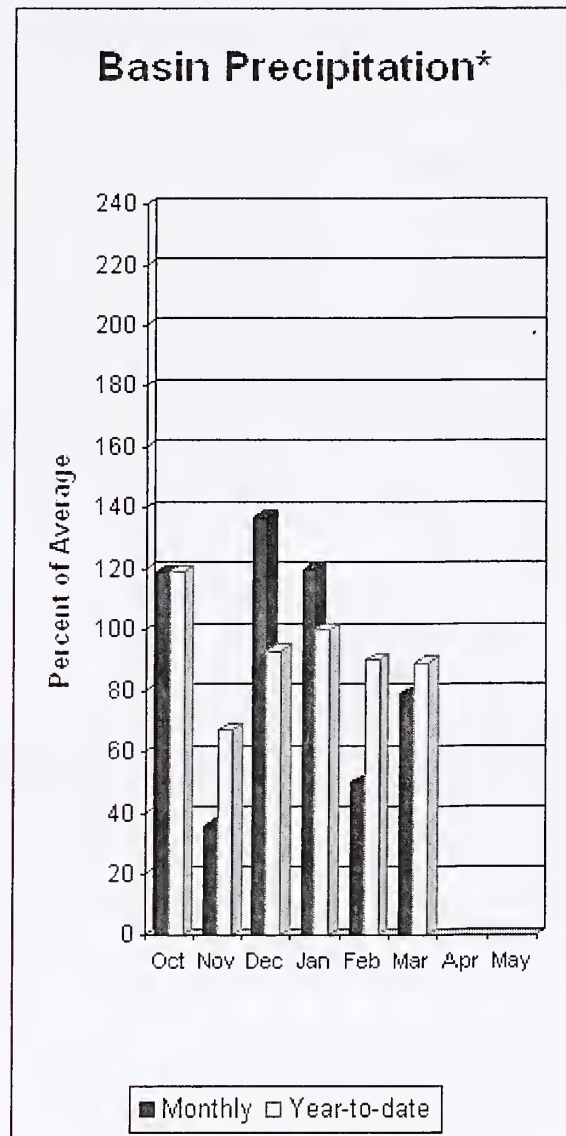
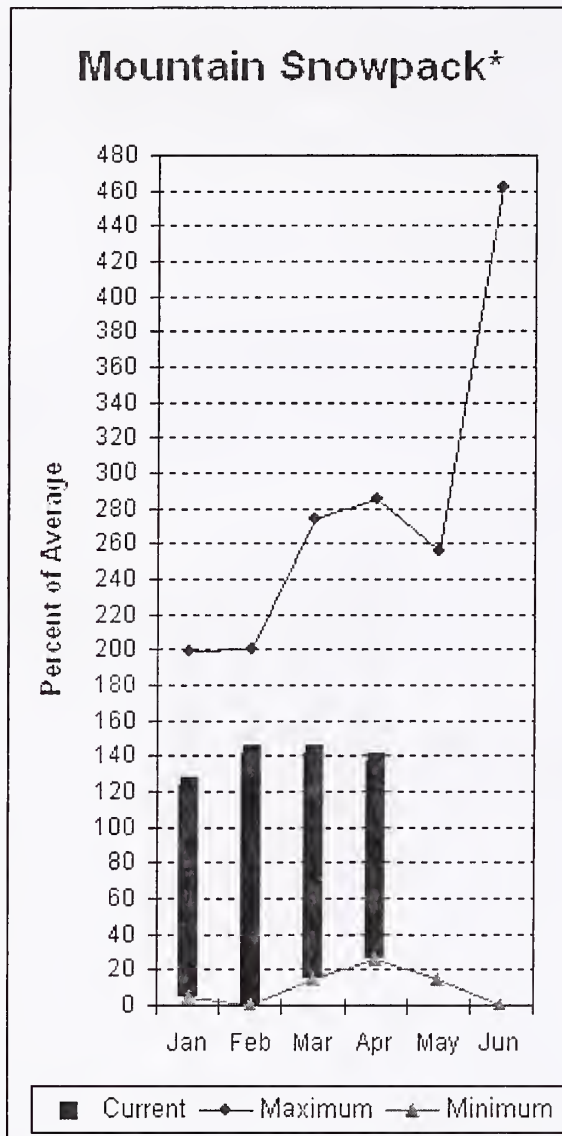
NORTH PUGET SOUND RIVER BASINS Reservoir Storage (1000 AF) - End of March					NORTH PUGET SOUND RIVER BASINS Watershed Snowpack Analysis - April 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ROSS	1404.1	531.1	876.5	693.0	SKAGIT RIVER	17	107	114
DIABLO RESERVOIR	90.6	86.3	86.3	86.2	BAKER RIVER	0	147	0
					NOOKSACK RIVER	1	140	159

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Olympic Peninsula River Basins



*Based on selected stations

Forecasted average runoff for streamflow for the Dungeness and Elwha rivers is 117% and 115% respectively. March runoff in the Dungeness River was 55% of normal. Big Quilcene and Wynoochee rivers should expect near to slightly above average runoff this summer as well. March precipitation was 79% of average. Precipitation has accumulated at 89% of average for the water year. March precipitation at Quillayute was 8.45 inches. The thirty-year average for March is 10.98 inches. Olympic Peninsula snowpack averaged 137% of normal on April 1. Temperatures were 3 degrees below average for March and 1 degree below for the water year.

For more information contact your local Natural Resources Conservation Service office.

Olympic Peninsula River Basins

Streamflow Forecasts - April 1, 2008

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
DUNGENESS near Sequim	APR-JUL	133	141	146	118	151	159	124
	APR-SEP	166	173	178	117	183	190	152
ELWHA near Port Angeles	APR-JUL	410	450	480	115	510	550	419
	APR-SEP	515	555	580	115	605	645	503

OLYMPIC PENINSULA RIVER BASINS Reservoir Storage (1000 AF) - End of March					OLYMPIC PENINSULA RIVER BASINS Watershed Snowpack Analysis - April 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					OLYMPIC PENINSULA	6	127	137

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Issued by

Arlen Lancaster
Chief
Natural Resources Conservation Service
U.S. Department of Agriculture

Released by

R.L. "Gus" Hughbanks
State Conservationist
Natural Resources Conservation Service
Spokane, Washington

The Following Organizations Cooperate with the Natural Resources Conservation Service in Snow Survey Work*:

Canada	Ministry of Sustainable Resources Snow Survey, River Forecast Centre, Victoria, British Columbia
State	Washington State Department of Ecology Washington State Department of Natural Resources
Federal	Department of the Army Corps of Engineers U.S. Department of Agriculture Forest Service U.S. Department of Commerce NOAA, National Weather Service U.S. Department of Interior Bonneville Power Administration Bureau of Reclamation Geological Survey National Park Service Bureau of Indian Affairs
Local	City of Tacoma City of Seattle Chelan County P.U.D. Pacific Power and Light Company Puget Sound Power and Light Company Washington Water Power Company Snohomish County P.U.D. Colville Confederated Tribes Spokane County Yakama Indian Nation Whatcom County Pierce County
Private	Okanogan Irrigation District Wenatchee Heights Irrigation District Newman Lake Homeowners Association Whitestone Reclamation District

*Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.



Washington Snow Survey Office
2021 E. College Way, Suite 214
Mount Vernon, WA 98273-2873

FOR OFFICIAL USE ONLY



USDA NATIONAL AG. LIBRARY
CURRENT SERIAL RECORDS
ROOM 002
10301 BALTIMORE AVE.
BELTSVILLE, MD 20705-2351



Washington Water Supply Outlook Report

Natural Resources Conservation Service
Spokane, WA



LIBRARY
77
310
2008
08273

333

